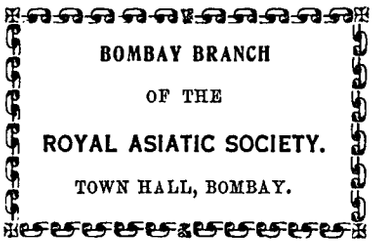
Forest Dept.
Madras,
report.
1872-73 and 1873-74

00134078



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ANNUAL

ADMINISTRATION REPORT

THE FOREST DEPARTMENT,

MADRAS PRESIDENCY,

134078

FOR THE

OFFICIAL YEAR

1872-73.

MADRAS:
PRINTED BY E. KEYS, AT THE FORT ST. GEORGE GAZETTE PRESS.

1874.

00134078

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ANNUAL REPORT

OF THE

FOREST DEPARTMENT, MADRAS PRESIDENCY,

FOR 1872-73.

THE Board resolve to submit to Government the annual Report of the Forest Department for 1872-73.

2. The subject will, as usual, be treated under the following sections :—

SECTION I.—Inspection tours of the Inspector of Forests.

SECTION II.—Reserves.

A.—Reserved forests.

B.—Fuel reserves.

C.—Plantations.

SECTION III.—Forests worked under the license and voucher system.

SECTION IV.—Yield of forests.

SECTION V.—Financial results.

SECTION VI.—General remarks.

3. SECTION I.—The conservancy of forests was placed under the Collectors on the 1st October 1872. Since then the Inspector of Forests has visited all the districts in which there are forests, excepting Ganjam and Vizagapatam. His tours, however, were rapid, and he had no time to inspect the operations in the forests. He conferred with the Collectors of the several districts, explained to them the system of operations previously in force, and directed their attention to improvements. He dwells at some length on the expediency of requiring a knowledge of surveying from Overseers, on the imperfect conservancy of North Arcot, and on the expediency of keeping up a specially trained forest establishment. The Board do not quite understand how officers who have already obtained the appointment of Overseers, and have important duties to perform, can be made to pass in

surveying, and the Inspector will be requested to explain what he means. The case of North Arcot is under consideration, and is the subject of correspondence with the Collector. The Board have already represented to Government the desirability of giving the Inspector a certain amount of control over the forest establishments. No information is before the Board as to any tours which may have taken place previous to the 1st October 1872.

4. SECTION II.—RESERVES.—(A.) *Reserved Forests.*—In some localities forests are reserved by tracts, and in others only certain description of trees are reserved for felling by departmental agency. The Board have no information regarding the area of all the reserved forests, nor regarding the estimated number or value of the timber or other valuable trees contained in them. It is no doubt extremely difficult to make an accurate estimate in forests where trees are generally unequally distributed, but the Board hope that Collectors will endeavour to collect as much of this important information as may be possible. The following appear to be the forests altogether reserved for departmental felling :—

I. *Ganjam.*—Portions of the Gumsur and Suradah forests, area not known.

II. *Kurnool.*—A tract of the Nallamallays, containing about 300 square miles.

III. *Madura.*—The forests at Periacolum and Pulney.

IV. *Tinnevelly.*—Portions of the forests near the sources of the important rivers which irrigate the district.

V. *Coimbatore.*—The Anamallay, Government and leased forests, and the Sholacurray forests in the Bolumputty Range.

VI. *Nilgiris.*—The Mudumallay leased forests and a portion of the Wynaad worked in connection with it, containing about 300 square miles.

VII. *Malabar.*—The Chenat Nair forests, containing about eighteen square miles.

The Nelambore forest.

The Government Teak belt in Wynaad.

VIII. *South Canara.*—The Ghaut forests.

5. In Tinnevelly the forests appear not to have been reserved previous to the transfer of the department to the Collectors, but to have been thrown open on the license system to charcoal burners and firewood and timber-cutters, who did enormous damage. Since the transfer, Mr. Puckle has reserved all those forests in which the important rivers of the district take their rise. The reservation is made not so much with the object of improving forest revenue as of preserving the water-supply of the district upon which depends a revenue of ten lakhs of Rupees, and a profit thrice as great to the ryots whose lands are irrigated thereby. In reserving these forests, Mr. Puckle has duly considered the requirements of the adjacent villagers and marked off spurs and slopes sufficient for their wants in the way of pasture and firewood, and he has prohibited entrance only into the black forest above. As justly remarked by Mr. Puckle, the forest net revenue, which is but Rupees 3,400, is but a trifle when compared with the water-supply

of a single village, and there can be no doubt but what forests play an important part in regulating the distribution of water; but Mr. Puckle goes a great deal too far when he says the supply depends on the existence of the forest.

6. The accompanying Statements B and C show the timber, etc., felled and sold by departmental agency in the reserved forests during the year under report, and subjoined is an abstract thereof:—

	Timber, etc., felled.		Timber, etc., sold.	
	Quantity.	Value.	Quantity.	Amount actually realized.
		Rs.		Rs.
Teak in cubic feet	19,466	11,842	42,421	78,788
Ebony or Blackwood, cubic feet ...	3,745	2,819	598	607
Rosewood, cubic feet	6,462	3,776	Not given.	386
Sandalwood, in maunds	15,329	29,491	17,228	57,627
Red Sander roots or posts ...	c. ft. 4,082 maunds 82,447	13,252	c. ft. 593 24,071	23,947
Other junglewood used as timber in cubic feet	34,634	19,662	38,871	26,242
Bamboos ... ... No.	16,000	480	54,366	3,188
Railway fuel	tons 120	360	586 Bdy. loads 126	3,765
Saplings	logs 531	398	11,229	7,379
Forest-produce	maunds 365	794	160	690
Total ..	.....	82,874	.....	2,02,619

7. The valuation* given above for timber felled is not based on the price at which it will be sold, but is calculated at the actual cost of felling and conveyance *plus* the supposed seigniorage on the timber standing in the forest.

* G. O., dated 22nd June 1872, No. 962.

Forests.	Value of Timber felled.	Price of Timber sold.
	Rs.	Rs.
Salem	14,000	11,000
Cuddapah	12,000	22,000
Madura	7,000	.....
Anamallay	6,600	.....
Bhowany	10,000	23,000
Collegal	7,500	17,000
Seegur and Sattiamangalum... ...	5,000	15,000
South Canara ...	11,000	.....
Mudumallay... ...	.....	52,000
Nellambore	.....	17,000
Wynaad	.....	21,000
Total...	73,100	1,78,000

8. The forests in which departmental operations were carried on on a large scale during the year are shown in the margin.

9. The Collector of Salem is endeavouring to extend departmental felling. The Collector of South Canara is arranging to work by contracts instead of by paid labour, as he considers that to be a cheaper mode of working. The results will be reported next year.

10. *B. Fuel Reserves.*—Plantations for fuel do not fall under this head, but only such portions of natural forest as are fenced in and reserved for railway or local requirements in the way of fuel.

11. The following table shows the number and area of the fuel reserves in each forest:—

	No. of the Reserves.	Estimated Area.
Cuddapah	3	4,133 acres.
North Arcot	2	6,400 ,,
Salem	6	not known.
South Arcot...	10	26,800
Madura	2	not known.
Trichinopoly	1	do.
Malabar—Chenat Nair	3	4,900
Coimbatore—Mettapolliem	1	not known.
Total...	28	

12. *Cuddapah.*—The Collector thinks that, considering the present requirements of the railway, the existing reserves are not large enough. He has, therefore, marked off two more tracts of about 6,600 acres, but he has not yet enclosed them, pending the settlement of certain disputes regarding the boundaries.

13. *North Arcot.*—The abandonment of one of the two reserves covering an area of about 6 square miles has been ordered* by Government, because its enclosure was considered to interfere with the rights of the people. Endeavours are now being made to select† a new locality, but the Collector doubts whether he will be able to find one free from objections.

* G. O., dated 11th June 1873, No. 591.

† Board's Proceedings, dated 26th September 1873, Forest No. 157.

14. *South Arcot.*—Out of the ten reserves, four covering an area of 10,500 acres are intended for local requirements, and the other six for railway purposes. The Collector has been called upon to report whether the reserves required for local requirements cannot be transferred to Jungle Conservancy.

15 The reserves in the other districts call for no remark.

16. The quantity and value of firewood cut and sold from these reserves during 1872-73 cannot be exactly ascertained, but the amount realized from the entire quantity of firewood sold, which, for the most part, must be from these reserves, is shown below:—

	Rs.		Rs.
Gumsur and Suradah ...	84	Seegur and Sattiamangalum	1,828
Kurnool	56	Bhowany	4,381
Cuddapah	38,525	Collegal...	652
North Arcot	5,797	Mettapolliem	552
South Arcot	393	Mudumallay	100
Madura	6,121	Salem	35,364
Trichinopoly	573	Nellambore	251
Bolumputty...	2,186	South Canara	13,405
Anamallay	741		1,11,009

	Rs.
As per Statement C.	3,764
Do. E.	79,510
Permit fees in Statement A	27,735
	1,11,009

17. The above sum includes Rupees 27,735 entered in the accounts as "permit fees," which are said to be chiefly collected on firewood removed on contract. Collectors will be requested to show, in future, the several items on which the permit fees are collected.

18. Full information is not available regarding the cost of maintaining the fuel reserves, and the Collectors will be requested to give it in their next administration report in the form given below :—

Name of the Reserve.	Year in which the Reserve was formed.	Area.	Charges		Receipts		Remarks.
			During the year.	Up to the year.	During the year.	Up to the year.	

The past accounts probably do not show the receipts and charges of each reserve separately, but the Board hope that the Collectors will be able to estimate the figures with approximate correctness.

19. *C.—Plantations.*

There are three descriptions of plantations, *i.e.* :—

1. Fuel plantation.
2. Timber do.
3. Experimental plantations.

The following is a list of the existing plantations :—

Name of the Forest.	Fuel Plantations.				Experimental and Timber Plantations.			
	Number of Plantations.	Description of Trees.	Number of Trees.	Area in Acres.	Number of Plantations.	Description of Trees.	Number of Trees.	Area in Acres.
Gumsur and Suradah	...	.....	.....	...	1	Teak and other Timber trees	250	Not known.
Golcondah	...	.....	.....	...	...	.....	...	...
Cuddapah	4	Albizzia Lebbeck, Cassia florida, etc.	154,500	1,678	1	Red Sanders	16,000	50
Bellary	1	Melia Azadirachta and other Acacias	45,020	404	...	.....	...	...
Kurnool	...	.....	.....	...	2	Mango and Red Sanders	952	15
						Teak	132	
North Arcot	5	Chiefly Casuarina	456,000	980	1	Experimental with 90 different trees.	11,000	25
South Arcot	...	.....	.....	...	3	Do. Casuarina...	...	20
Trichinopoly	5	Babul and Casuarina ...	180,000	210	...	.....	...	...
Tanjore	1	Do.	1,000	70	...	.....	...	...
Madura	1	Babul and Eucalyptus ...	7,000	...	2	Teak	5,367	...
Tinnevelly	...	.....	.....	...	...	.....	...	...
Anamallay	...	.....	.....	...	1	Experimental Teak	...	9
Bhowany...	...	.....	.....	...	...	.....	...	...
Collegal	...	.....	.....	...	1	Sandalwood	23,000	77
Seegur and Sattiamangalum...	...	.....	.....	...	2	Do.	49,400	78
Mettapolliem	...	.....	.....	...	...	.....	...	...
Bolumputty	...	.....	.....	...	...	.....	...	...
Mudumallay	...	.....	.....	...	2	Teak	60,000	...
Salem	1	Babul	.....	50	2	Sandalwood experimental...	...	...
South Canara...	...	.....	.....	...	1	Teak	90,000	...
Wynaad	...	.....	.....	...	...	.....	...	...
Nellambore	...	.....	.....	...	...	Teak	...	...
Chenat Nair	...	.....	.....	...	...	.....	...	...

20. The Collector of Kurnool remarks that the plantations in his district are a failure, and are not worth the cost. The Inspector of Forests will be requested to report on this point.

21. The Board regret that full information is not available in regard to the cost of all these plantations, and the Collectors will be requested to submit, with their next administration report, a statement prepared in the annexed form, the figures for the past year being estimated on the best possible data:—

Name of the Plantation.	Year in which the Plantation was formed.	Area.	Description of the Trees.	Number of the Trees.	Cost		Receipts	
					During the year.	Up to the year.	During the year.	Up to the year.
					Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.

22. Section III.—*Forests worked under the License and Voucher System.*—Statement E shows the collections in each forest under this head, and the following is an abstract of it:—

Description of Timber, etc., removed under the License System.	Quantity.	Amount realized.
		Rs.
Teak, in cubic feet	56,209	5,183
Ebony or Blackwood, do.	261	85
Rosewood, do.	240	60
Other Junglewood used as timber ...	472,875	58,541
Firewood, in tons	35,990 / C. loads 4,673	79,510
Charcoal in cart-loads, ...	27,664 / Tons 935	5,091
Bamboos, do.	45,080 / No. 205,100	27,848
Palmyrah trees...	74	147
Forest-produce	Maunds 59,383	2,535
Total...	.....	1,79,000

	Rs.
1. Cuddapah	50,826
2. Salem	34,604
3. Kurnool	29,490
4. North Arcot	13,996
5. South Canara	11,521
6. Madura	11,412
Total...	1,51,849

23. The forests in which the largest sums were collected under this head are shown in the margin.

24. Section IV.—*Yield of Forests.*—The subjoined statement shows the total yield of each forest, that is, the quantity of timber, etc., sold or removed free of payment.

Yield of Forests.

Ranges.	Timber.					Firewood for Railway and other purposes.		Bamboos.		Palmyras.	Charcoal.	Forest-produce.
	Departmentally.		On License.		Free.	On License and Departmentally.	Free.	On License.	Free.			
	C. ft.	Maunds.	C. ft.	Maunds.	C. ft.	Tons.	Tons.	Cart-loads.	Cart-loads.	No.	Tons.	Maunds.
Gumsur and Suradah...	1,952	...	45,070	...	...	236	...	...	...	...	...	...
Golcondah	...	...	b. l. 3	...	...	...	..	119	...	...	...	...
Cuddapah	3,305	82,447	102,380	...	6,680	17,199	625	1,810	111	38	7	5,550
Bellary	...	...	...	...	...	...	...	...	...	...	...	...
Kurnool	...	...	217,720	...	21,500	c. l. 273	...	14,715	283	...	c. l. 25,867	...
North Arcot	1,233	40	34,780	...	...	c. l. 4,198	...	9,748	...	...	c. l. 1,065	c. l. 23
South Arcot	811	...	9,288	...	7,010	164	191	1,306	133	...	14	34,347
Trichinopoly	...	...	...	...	...	...	...	...	...	...	...	...
Madura	7,715	...	44,361	...	...	3,235	...	2,128	...	...	c. l. 732	...
Tinnevelly	593	...	6,544	...	...	...	...	...	...	...	...	...
Anamallay	10,481	...	322	...	4,368	331	148	2,987	347	...	15	c. l. 1
Bhowany	...	5,933	8,964	...	...	20	...	...	...	...	...	...
Collegal	1,967	4,039	2,240	...	...	...	...	...	...	...	...	...
Seegur and Sattiamungalum	998	2,902	1,903	...	...	c. l. 202	...	...	...	...	...	c. l. 10
Mettapolliem	...	...	408	...	...	100	...	...	...	...	...	...
Bolumputty	...	...	1,998	...	304	969	6	1,189	28	...	21	b. l. 50 113
Mudumallay	...	...	...	...	...	...	...	...	...	...	...	...
Salem	7,825	2,415	50,896	...	53,584	12,122	...	11,078	1,400	...	868	19,738
South Canara	20,935	...	2,712	...	...	1,734	...	221,100	...	36	10	...
Wynaad	6,436	...	...	...	...	...	...	...	...	...	...	...
Nellambore...	...	...	...	...	...	...	...	...	...	...	...	...
Chenat Nair	4,337	...	...	...	...	...	...	...	...	...	...	...
Total...	68,588	97,776	529,586 b. l. 3	...	93,446	36,110 c. l. 4,673	970	45,080 No. 221,100	2,302	74	935 c. l. 27,664	59,748 c. l. 84

N.B.—The quantity entered under fir ewood is exclusive of that sold under the contract system, the value of which is about Rupees 28,000.

25. The quantity of timber and fuel shown above as having been removed free of payment is not quite correct. Some Collectors have not given any information on the subject, and all Collectors will be requested to see that this information is furnished in their next report.

26. SECTION V.—*Financial Results.*—The accompanying Statement A shows the receipts and charges during the year. The following is an abstract of it. It must here be observed that the classification of receipts and charges does not correspond with that given in the statement forwarded to the Accountant-General by the Board prepared from the monthly statements, though the total amount is exactly the same. The Collectors have been called upon to explain the differences:—

Item.	Receipts.	Amount.	Item.	Charges.	Amount.
		RS.			RS.
I.	Sale of timber, etc., removed by Government agency	2,02,619	I.	Expenses for felling timber, etc....	97,115
			II.	Purchase of tools, etc. ...	2,803
II.	Sale of timber removed on license	1,79,002	III.	Feed and keep of cattle, etc.	19,089
			IV.	Rent of leased forests ...	3,726
III.	Duty on foreign timber*	150	V.	Charges connected with the collection of forest produce	2,395
IV.	Permit fees, etc.	27,735			
V.	Grazing dues...	.....			
VI.	Sale of fruits, Babul pod, etc.	3,502	VI.	Plantations	1,57,248
			VI(A).	Reserved forests	3,722
VII.	Sale of confiscated timber	3,155	VII.	Forest work, viz., cutting of creepers, etc.	2,226
VIII.	Fines and forfeitures ...	6			
IX.	Miscellaneous receipts...	2,598	VIII.	Forest survey	106
			IX.	Experiments to test the value of timber	52
			X.	Communications, etc. ...	11,276
				Amount refunded into the Treasury	62
				Miscellaneous charges ...	3,915
					3,03,735
				2. Establishment and Office Contingencies	1,74,412
	Total...	4,18,767		Total...	4,78,147

27. The charges above shown include under Plantations Rupees 1,00,000 paid for the purchase of two tracts of land in Malabar; one for extending the Nellambore Teak plantation, and the other for a fuel reserve. Excluding this extraordinary charge, the usual charges are less than the receipts by Rupees 40,620. This result is satisfactory on the whole. The receipts obtained by departmental operations, however, fall short of the working charges. The former amount to Rupees 2,02,000, while the latter, including the share of the supervision charges, but excluding the extraordinary charge incurred on account of the purchase of

* The Board are making inquiries about this item.

	Rs.
* Working charges	2,03,735
Share of establishment, etc., charges	84,000
	2,87,735

the forest lands at Malabar, amount to Rupees 2,87,735.* But it must be remembered that most of the plantations for which a large expenditure is incurred have not yet commenced to pay, and that the working charges are partly incurred for the benefit of the other items of receipts. For instance, the collections on account of firewood which appear under "License System" are from reserves, the cost of maintaining which appears under "Working Charges.' With the materials before the Board, it is impossible to calculate the profits derived by working departmentally and under the license system respectively. The Collectors will be requested to estimate the profits and allude to it specially in their next administration report. The total income and cost in each forest is shown below.

G.—*Statement showing the financial Transactions of the Forest Department for the official year* 1872-73.

Ranges.	Expenditure.	Receipts.	Difference between Columns 2 and 3.	Value of Timber in Depôt.	Increase of Stock during the year.	Decrease of Stock during the year.	True results of the year calculated on Columns 4, 6, and 7.
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central Office ...	29,359	.....	—29,359	.....	.....	.....	— 29,359
Gumsur and Suradah	3,135	3,677	+ 542	811	.....	20	+ 522
Golcondah	776	50	— 726	.....	.....	.....	— 726
Cuddapah	25,851	73,261	+47,410	4,265	.....	4,645	+ 42,765
Bellary	1,523	.....	— 1,523	... ..	.....	.....	— 1,523
Kurnool	8,405	31,011	+22,606	486	.....	497	+ 22,109
North Arcot ...	17,548	19,564	+ 2,016	1,385	.....	3,003	— 987
South Arcot ...	9,473	4,099	— 5,374	1,228	.....	136	— 5,510
Trichinopoly ...	16,284	673	—15,611	.....	.. ...	.....	— 15,611
Madura	21,483	16,004	— 5,479	15,859	5,126	.....	— 353
Tinnevelly	13,533	16,819	+ 3,286	12,676	.....	3,279	+ 7
Tanjore	1,007	.....	— 1,007	.....	.....	.....	— 1,007
Anamallay	42,648	11,649	—30,999	1,62,261	24,689	.....	— 6,310
Bhowany	20,424	26,686	+ 6,262	6,405	.....	3,827	+ 2,435
Collegal	13,120	18,361	+ 5,241	3,081	.....	4,870	+ 371
Seegur and Sattiamangalum ...	9,694	17,253	+ 7,559	4,018	.....	4,469	+ 3,090
Mettapolliem ...	3,863	807	— 3,056	300	300	.....	— 2,756
Bolumputty ...	1,417	3,559	+ 2,142	379	286	.....	+ 2,428
Mudumallay ...	46,039	46,043	+ 4	1,05,694	.....	29,629	— 29,625
Salem	23,398	64,234	+40,836	7,277	4,470	.....	+ 45,306
South Canara ...	20,487	23,596	+ 3,109	32,131	6,425	.....	+ 9,534
Wynaad	14,798	23,469	+ 8,671	19,514	.....	9,510	— 839
Nellambore	1,07,322	17,111	—90,211	15,027	... ..	15,239	— 1,05,450
Chenat Nair ...	26,560	841	—25,719	5,571	538	.....	— 25,181
Total...	4,78,147	4,18,767	—59,380	3,98,368	41,834	79,124	— 96,670

28. The stock in hand at the commencement and close of the year is shown in Statement D. Its abstract is given below.

H.

Ranges.	At the commencement of the year.	At the close of the year 1872-73.	Difference	
			In favour of the year.	Against the year.
	RS.	RS.	RS.	RS.
Gumsur and Suradah	831	811	...	20
Golcondah	...	...	...	...
Cuddapah	8,910	4,265	...	4,645
Bellary	...	...	...	...
Kurnool	983	486	...	497
North Arcot	4,388	1,385	...	3,003
South Arcot	1,364	1,228	...	136
Madura	10,733	15,859	5,126	...
Trichinopoly	...	...	...	...
Tinnevelly	15,955	12,676	...	3,279
Anamallay	1,37,572	1,62,261	24,689	...
Bhowany	10,232	6,405	...	3,827
Collegal	7,951	3,081	...	4,870
Seegur and Sattiamungalum	8,487	4,018	...	4,469
Mettapolliem	...	300	300	...
Bolumputty	93	379	286	...
Mudumallay	1,35,323	1,05,694	...	29,629
Salem	2,807	7,277	4,470	...
South Canara	25,706	32,131	6,425	...
Wynaad	29,024	19,514	...	9,510
Nellambore	30,266	15,027	...	15,239
Chenat Nair	5,033	5,571	53	...
Total Assets...	4,35,658	3,98,368	41,834	79,124
Add total valuation of timber felled as per Statement B	82,875			
Total...	5,18,533			
Deduct total valuation of timber sold during the year	1,73,897			
	3,44,636			
Add increase on the valuation of the last year's stock	53,732			
Balance of stock at the close of the year ...	3,98,368			

29. From the above it will be seen that the value of the stock on hand at the close of the year is less than that at the commencement by Rs. 37,000.

30. *General Remarks.*—The reports received from the Collectors, the Inspector of Forests, and the Range Officers, contain a great deal of matter quite out of place in an administration report, which should be simply confined to a brief review of the transactions of the year. Collectors will be requested to submit, in future, all questions and suggestions requiring orders separately. If orders are required on any subjects mooted in the reports now under consideration, they should be re-submitted.

31. During the year, the system of allowing free passes to ryots for wood came under the special consideration of the Board, Major Beddome having remarked that the present system of permitting Village Munsifs to issue free passes to ryots without limit was likely to cause the entire destruction of forests in railway districts and affect the revenue considerably. From the reports received from the Collectors subsequent to the close of the official year, the Board find that Major Beddome's statement is exaggerated, and that the restrictions placed on the free cutting of wood by villagers are quite sufficient. The only districts in which the reports in any degree endorse Major Beddome's statement are North Arcot, South Arcot, and the Nilgiris. In North Arcot, the Collector must re-consider the matter, and the Board are in correspondence with him. In South Arcot, the abuses are simply the results of maladministration, and will disappear if simple precautions and checks are enforced. In the Nilgiris, it is stated that more wood than was entered in the free passes has frequently been cut. Steps are being taken to check the evil.

32. The Board will now notice the forests of each district separately, with reference to the remarks made by the Collectors and their Range Officers.

33. *Ganjam.*—The Collector had no time to inspect any of the forests during the six months they were under his management. The Forester in charge observes that certain Zemindars are attracting purchasers by charging a smaller seigniorage than the Government, and as wood-cutters have to pass to their forests through those of the Government, it is impossible to check surreptitious felling without some increase in the number of watchmen. The marks which he makes regarding cattle-disease and the way in which it is fostered and propagated demand attention. The health of the establishment has been very indifferent.

34. *Vizagapatam.*—The forests in this district are conserved by the Principal Assistant Collector. No timber is felled by departmental agency in consequence of the difficulty of bringing it from the ghauts to the plains. The collections which are derived entirely from seigniorage amount only to Rupees 50. They are said to have decreased in consequence of "want of cattle and want of money on the part of the ryots." The Board hope a more careful and detailed report will be submitted for 1873-74.

35. *Cuddapah.*—The Collector thinks plantations very unprofitable compared with reserves, and strongly condemns the existing system of raising plantations by sowing seeds in pits and channels. The soil is stated to be poor, and the land quite bare to the sun; there being no scrub-jungle whatever. The Collector thinks the land should be ploughed and sown broadcast with the seeds of Babul and hardy indigenous trees, and that the plants should be thinned as they grow. The Inspector of Forests is of the same opinion, and this course should be adopted in future. The denudation by the railway is enormous, and throws losses by free felling altogether into the shade. The fires in the jungles are most destructive, and appear to be caused intentionally by the cow-herds, because when the old grass is burnt the young grass shoots up vigorously, and good pasturage is obtained. As a remedy, the Collector suggests that the owners of cattle grazing in the forests,

where the fires arise, should be fined indiscriminately, but the Board do not see how the suggestion can be carried out. It should be considered whether the best forests can be strictly reserved and cattle excluded from them.

The Collector suggests that to protect growing Red Sanders portions of the forest should be enclosed, and the Inspector urges that the western side of the chain of mountains running from Tripetty to Cuddapah should be taken charge of, as well as the eastern. The Collector should consider the Inspector's suggestions, and state what the probable cost of fencing will be, and whether the reservation can be effected without reducing the annual receipts. Portions of forests are claimed by Shrotriemdars as being within the boundaries of their villages, and the Collector thinks that all the claims are groundless. He gives his reasons for so thinking, but the Board can come to no final decision on the subject on such general grounds as those now put forward. Reports must be submitted when necessary, and the attention of the Director of Revenue Settlement will be drawn to this portion of the Collector's letter. The establishment is said to have worked extremely well under Mr. Yarde, but the Collector thinks it must be strengthened.

36. *Bellary.*—There are no forests in this district, but only a few fuel plantations which are superintended by Mr. Yarde, the officer in charge of the Cuddapah forests. The plantations have not yet commenced to yield fuel, and the Inspector says that, as in Cuddapah, they are not at all promising.

37. *Kurnool.*—The Collector states that the decrease in the collections of seigniorage during the year is partly due to certain renters of the adjacent forests belonging to the Kalastry Zemindar under-selling the Government. Timber is also said to be smuggled from Government jungles, but this evil will be abated, now that the Collector has succeeded in getting Achayya's land for Government (G. O., dated 13th October 1873, No. 1,098). The Collector will be called upon to report whether the Kalastry Zemindar's forest cannot be obtained on lease, and, if so, at what cost.

38. *North Arcot.*—Illicit felling is rife, and conservancy, according to the Inspector, in a chaotic state. The Collector has suggested certain measures to remedy the evil, and he has been called upon to report further on the subject. The Mamundur reserve promises to be very successful. The Inspector remarks on the great success of Casuarina planting in beds of rivers, etc. The plantation should be extended wherever it is possible to do so.

Board's Proceedings, dated 23rd April 1873, No. 626.

39. *South Arcot.*—No forests are reserved, but the better sorts of timber are felled departmentally. There are ten fuel reserves; planting went on in seven, fencing in one, and preliminary patrolling, etc., in two. There are three plantations, one new, doing well. Several jungle conservancy plantations and nurseries, etc., were placed under the Deputy-Conservator. The establishment has been weakened by constant illness, and is said to be too small.

40. *Trichinopoly and Tanjore.*—In these districts there are no forests, but only a few fuel plantations which have been carefully managed. They have not yet commenced to pay. The Inspector fears that no very great progress has been made towards forming good permanent railway fuel plantations in Trichinopoly, and urges the importance of conservancy generally, and especially in the padugays, now that the increasing price of coal makes the railways still more dependent on supplies of wood fuel.

41. *Madura.*—The Teak plantations in the Periacolum and Pulney Taluqs have been extended during the year. A considerable number of Australian trees were also planted on the Pulney Hills.

42. *Tinnevelly.*—The Collector has placed the conservancy of certain forests near the sources of the rivers under the immediate control of the neighbouring Tahsildars instead of the Sub-Overseers of the Forest Department. The demand for timber in the district is stated to be small, the centrings of the Palamcottah and Ambasamoodrum bridges, which have been offered for sale, having glutted the market. The Collector also remarks that the Travancore Government under-sell the Madras Government. The Inspector bears witness to the success of the Collector's efforts to make fuel reserves on channel-banks, etc. The Collector will report on the proposal when he favours to divide the pay of the Overseers between Imperial and Local Funds. The system of felling on license has been abandoned, except in the case of persons cutting timber for building purposes.

43. *Coimbatore, Anamallay Reserve Forests.*—The Teak forest has been declared a reserve forest and closed to all but servants of Government. The Collector has inspected the Teak and Rosewood forests, and submits a valuable report. A large quantity of timber felled long ago, and figuring as stock assets in the accounts, is stated to be still lying in the forests. Endeavours are being made to remove it to the depôts and sell it to the best advantage. More has been removed from the forests than in any previous year. The necessity for a liberal fixed allotment for working charges, of making and improving roads, and of sparing no expense in keeping Forest Officers in health by giving them the means of building good houses in healthy sites, etc., are dwelt on by the Collector, and he bears strong testimony to the zeal and efficiency of Mr. Douglas, the Deputy-Conservator in charge.

Do. Unreserved Forests, etc.—The time has evidently come when the encroachments of cultivation on forest must be checked, and the Collector has given his attention to the subject. A large fuel reserve is to be formed on a tract of land which was long in dispute between the Nambiddy of Collingode and Coimbatore.

44. *Bolumputty.*—This forest is worked entirely under the license system.

45. *Mettapolliem.*—There is only one fuel reserve in Mettapolliem. This is expected in time to supply a sufficient quantity of fuel for the use of the Nilgiri branch of the railway.

46. *Sattiamangalum, Bhowany, and Collegal.*—The work in the Sandalwood plantations was vigorously prosecuted, and they are reported to be thriving. The Collector visited these forests of the Burghoor ghaut, and found that the existing

system of leasing the right of collecting seigniorage to fuel contractors has given rise to great abuses. The subject is now under investigation, and will be shortly laid before Government.

Board's Proceedings, dated 29th May 1873, Forest No. 27.

47. *Nilgiris, Mudumallay, and Seegur.*—The Commissioner in whose charge these forests have been placed lately makes no report; and the Deputy-Conservator's Report does not call for any special remark.

48. *Salem.*—The storm of the 2nd May 1872 is stated to have done great damage to the forests. Four new depôts were opened during the year in the Tripatore Range, and the Collector is endeavouring to increase the number, and hopes that there will be a large increase of revenue during 1873-74. It has been found possible to dispose of the long grass and dead wood in some of the reserves without their being injured, and the danger of fires has thus been reduced.

49. *South Canara.*—All the works connected with the removal of timber is now done by hired elephants and cooly labour. The Collector is endeavouring to introduce the contract system which he hopes will prove more economical. Endeavours are also being made to increase the number of the sale depôts.

50. *Malabar, Nellambore.*—The Nellambore plantation now contains 18,615 acres, of which 2,790 are planted with Teak; 4,200 acres of natural forest and 88 acres of Teak plantation were purchased from the Eddawanha Rajah for Rupees 80,000 in the year under report; a fair revenue is obtained from the natural forest in the parts not yet planted and from thinnings in the plantations. The survey has been completed and maps lithographed. During the year 2,35,000 seedlings were set out in 235 acres, and this is said to be by far the largest amount of planting effected in any single season. The Collector has compiled a valuable account of the expenditure and receipts from the commencement, and shows conclusively that the plantations will be very profitable to Government.

51. *Wynaad.*—The Teak belt consists of three natural Teak forests which accrued to Government in consequence of rebellion of the owner at the end of the last century. A large quantity of timber felled several years ago is still lying about in the forest, but endeavours are being made to dispose of it. As soon as this has been effected, felling will be proceeded with in a more systematic manner than hitherto. A survey is said to be much required.

52. *Chenat Nair.*—This forest consists of certain escheat lands near Palghaut. During the year 1,800 acres of natural forest were purchased and added to it. The tract is stated to be within influence of the monsoon, so that by fencing and strict preservation a large supply of firewood at a very low cost will result from spontaneous growth. No felling took place during the year, because the forest required rest.

53. The reports received from the Inspector of Forests, the Collectors, and their Deputy-Conservators are herewith forwarded to Government in original, as it is too late to print them. Some of them, however, contain valuable information, and the Board request that they may be printed after the report is reviewed by Government.

A.—*Detailed Statement of Receipts and Charges under A, "Conservancy and Working," B, "Establishment and Contingencies" Department for* 1872-73.

Budget classified Items.	Central Office.	Gumsur and Suradah.	Golcondah.	Cuddapah.	Bellary.	Kurnool.	North Arcot.	South Arcot.	Trichinopoly.	Tanjore.	Madura.	Tinnevelly.
1	2	3	4	5	6	7	8	9	10	11	12	13
Receipts.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Sale of Timber brought to Depôt by Government Agency.	...	428	...	21,884	...	171	5,404	1,342	...	...	4,096	3,255
Value of Timber supplied to D. P. Works and other Depts.	...	238	...	...	...	247	...	...	...	...	...	357
II. Sale of Timber, Firewood, Bamboos, etc....	...	2,993	40	50,827	...	29,491	13,997	2,686	573	...	11,415	9,911
III. Duty on foreign Timber	...	...	...	...	...	150	...	...	...	...	...	...
IV. Permit fees and rent of Jungles	...	...	...	...	...	...	...	...	...	...	...	...
V. Grazing dues	...	...	...	...	...	...	...	...	...	...	...	...
VI. Sale of fruits, babool pods, etc...	...	...	...	...	...	48	...	...	32	...	...	2,944
VII. Do. of confiscated drift and waif Timber	...	18	...	530	...	866	157	44	...	...	161	345
VIII. Fines and forfeitures	...	...	...	...	...	...	...	...	..	..	...	...
IX. Miscellaneous receipts	...	...	10	20	...	38	6	27	68	...	334	7
Total Receipts...	...	3,677	50	73,261	...	31,011	19,564	4,099	673	..	16,004	16,819
A. Conservancy and Working.												
I. Timber expenses for felling, etc.	...	308	...	7,797	..	403	973	509	10	..	8,531	1,113
II. Purchase of elephants and cattle, etc.	...	..	...	...	...	55	8	3	25	..	94	...
III. Feed and keep of do. do.	..	195	...	...	...	...	...	...	...	...	...	...
IV. Rent of leased forests, etc.	...	...	...	...	...	...	...	...	...	...	...	...
V. Charges connected with the collection of revenue on grass.	...	...	...	..	...	16	...	50	...	...	...	856
VI. Plantations	...	36	...	8,064	1,243	364	6,126	2,481	8,360	173	1,027	1,108
(a) Fuel reserves	...	..	...	108	...	...	858	...	201	...	1,041	...
VII. Forest work, viz., cutting of creepers, etc.	...	9	...	...	...	...	...	87	...	...	845	...
VIII. Forest survey	...	...	...	...	...	...	...	...	...	...	...	...
IX. Experiments to test the value of different timber	...	...	...	...	...	...	1	...	...	...	...	...
X. Communications, Buildings, etc.	...	...	...	1,172	...	982	276	...	177	...	330	161
Amount refunded into the Treasury...	...	...	...	...	...	..	...	...	28	...	...	6
Miscellaneous charges	...	...	...	.	...	...	...	...	...	...	...	...
	...	548	...	17,141	1,243	1,820	8,242	3,130	8,801	173	11,868	3,244

A.—*Detailed Statement of Receipts and Charges under A. "Conservancy and Working," B. "Establishment and Contingencies," etc.*—(Continued.)

Budget classified items.	Anamallay.	Bolumputty	Collegal.	Sigur and Sathiamangalam.	Mettapoliem.	Bhowany.	Mudumallay.	Salem.	South Canara.	Wynaad.	Nelambur.	Chenat Nair.	Total.
	14	15	16	17	18	19	20	21	22	23	24	25	26
Receipts.	RS.	RS.	RS.	RS.	RS.	RS	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Sale of Timber brought to Depôt by Government Agency.	5,163	...	17,000	14,896	..	23,488	32,975	10,493	2,707	21,188	16,807	600	1,81,897
Value of Timber supplied to D. P. Works and other Depts	3,117	3	149	...	...	...	12,968	189	2,535	374	304	241	20,722
II. Sale of Timber, Firewood, Bamboos, etc.	3,308	3,556	560	1,033	246	2,241	...	34,605	11,522	...	...	...	1,79,002
III. Duty on foreign Timber	...	...	...	...	...	...	..	...	...	...	...	...	150
IV. Permit fees and rent of Jungles	...	...	652	1,323	552	893	100	18,096	6,119	...	...	...	27,735
V. Grazing dues	...	...	...	...	...	...	...	...	...	...	...	...	...
VI. Sale of fruits, babool pods, etc.	61	...	...	...	...	...	...	183	234	...	...	...	3,502
VII. Do. of confiscated drift and waif Timber	...	...	...	...	...	64	...	528	442	...	...	...	3,155
VIII. Fines and forfeitures	...	...	...	...	...	...	...	...	6	...	...	...	6
IX. Miscellaneous receipts	...	...	...	1	9	...	...	140	31	1,907	...	...	2,598
Total Receipts...	11,649	3,559	18,361	17,253	807	26,686	46,043	64,234	23,596	23,469	17,111	841	4,18,767
A. Conservancy and Working.													
I. Timber expenses for felling, etc.	15,432	65	5,034	3,063	421	14,502	15,960	6,948	4,722	3,806	6,222	1,296	97,115
II. Purchase of elephants and cattle, etc....	58	...	75	298	56	1,178	108	...	522	...	276	47	2,803
III. Feed and keep of do. do.	8,296	...	492	193	...	1,051	5,487	...	2,959	...	...	416	19,089
IV. Rent of leased forests, etc.	...	...	...	...	...	...	3,635	...	11	...	80	...	3,726
V. Charges connected with the collection of revenue on grass.	173	200	...	...	...	...	...	675	63	345	...	17	2,395
VI. Plantations	851	...	4,635	4,238	...	94	3,280	862	1,393	14	89,915	22,984	1,57,248
(a) Fuel reserves	...	...	...	...	...	...	...	1,514	...	...	...	...	3,722
VII. Forest work, viz., cutting of creepers, etc....	1,248	10	...	...	...	3	...	...	...	...	...	24	2,226
VIII. Forest survey	...	...	...	...	...	...	...	...	...	...	106	...	106
IX. Experiments to test the value of different timber ...	...	...	...	...	...	...	...	2	...	...	49	...	52
X. Communications, Buildings, etc.	3,997	160	452	51	1,882	291	504	348	196	24	246	27	11,276
Amount refunded into the Treasury	28	...	...	...	...	...	...	...	...	...	...	...	62
Miscellaneous charges	...	...	...	...	...	...	...	79	...	3,836	...	...	3,915
	30,083	435	10,688	7,843	2,359	17,119	28,974	10,428	9,866	8,025	96,894	24,811	3,03,735

A.—*Detailed Statement of Receipts and Charges under A. "Conservancy and Working," B. "Establishment and Contingencies," etc.*—(Continued.)

Budget classified items.	Central Office.	Gumsur and Suradah.	Goleondah.	Cuddapah.	Bellary.	Kurnool.	North Arcot.	South Arcot.	Trichinopoly.	Tanjore.	Madura.	Tinnevelly.
	27	28	29	30	31	32	33	34	35	36	37	38
B.—*Establishment.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1. Pay of Inspector of Forests...	13,847	...	...	...	..	...	...	...	...	...	...	...
2. Pay of Executive Officers	4,346	...	...	2,912	...	1,428	2,912	3,134	4,147	...	4,511	3,293
Military pay of do.	...	...	...	...	...	...	...	...	...	...	...	...
Pay of the Forester in charge	...	1,200	...	...	...	...	...	...	...	...	...	...
3. Office Establishment—												
(*a*) Direction	4,318	...	...	...	...	...	...	...	..	...	...	...
(*b*) Executive	...	408	...	300	...	608	394	150	540	...	480	521
4. Forest Conservancy Establishment	...	576	648	3,543	336	1,202	3,191	1,120	...	775	3,182	4,378
5. Timber Depôt and work do.	...	...	...	...	...	1,950	689	...	...	...	...	...
6. Deputation and Special Allowances	...	...	...	...	...	...	...	..	...	...	140	...
7. Dresser's Pay	...	...	...	...	...	...	...	...	...	...	...	...
II. Travelling allowance including batta and travelling expenses.												
1. Inspector of Forests	3,326	...	...	...	...	...	...	...	...	...	...	...
2. Executive Officers	2,268	360	...	1,641	...	1,056	1,641	1,641	2,571	...	510	1,260
3. Subordinate Establishments	131	...	120	180	...	180	348	120	135	...	295	565
III. Contingencies.												
IV. Sundries	1,123	43	8	78	...	161	131	178	90	59	497	272
Total of Establishment and Contingencies...	29,359	2,587	776	8,654	336	6,585	9,306	6,343	7,483	834	9,615	10,289
Grand Total Rupees...	29,359	3,135	776	25,795	1,579	8,405	17,548	9,473	16,284	1,007	21,483	13,533

A.—*Detailed Statement of Receipts and Charges under A. "Conservancy and Working," B. "Establishment and Contingencies," etc.*—(Concld.)

Budget classified items.	Anamally.	Bolumputty.	Collegal.	Sigur and Sathiamangalum.	Mettapoliem.	Bhowany.	Mudumullay.	Salem.	South Canara.	Wynaad.	Nelambur.	Chenat Nair.	Total.
	39	40	41	42	43	44	45	46	47	48	49	50	51
B.—*Establishment.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1. Pay of Inspector of Forests...	...	...	...	...	...	...	...	...	...	...	...	...	13,847
2. Pay of Executive Officers	4,500	...	...	...	...	...	4,800	5,100	4,815	3,064	4,843	...	53,805
Military pay of do.	...	...	...	...	...	...	7,555	...	...	...	...	...	7,555
Pay of the Forester in charge...	...	...	...	...	...	...	...	...	...	...	...	...	1,200
3. Office Establishment—													
(*a*) Direction	...	...	...	...	...	...	...	...	...	...	...	...	4,318
(*b*) Executive	708	...	...	192	...	...	1,368	1,124	372	929	983	192	9,269
4. Forest Conservancy Establishment	3,827	936	2,064	1,476	1,347	2,615	2,304	2,925	3,690	1,245	2,379	1,168	44,927
5. Timber Depôt and work do.	192	...	...	...	...	...	...	...	...	...	936	...	3,767
6. Deputation and Special Allowances	...	...	...	...	...	...	...	1,027	...	...	...	...	1,167
7. Dresser's Pay	300	...	...	...	...	...	...	...	...	...	...	...	300
II. Travelling allowance including batta and travelling expenses.													
1. Inspector of Forests	...	...	...	...	...	...	...	...	...	...	...	...	3,326
2. Executive Officers...	1,912	...	...	...	...	...	766	1,641	1,050	1,461	1,037	.	20,815
3. Subordinate Establishments...	714	...	360	180	152	680	120	808	534	9	124	360	6,115
III. Contingencies.													
IV. Sundries...	412	46	8	3	5	10	152	345	160	65	126	29	4,001
Total of Establishment and Contingencies...	12,565	982	2,432	1,851	1,504	3,305	17,065	12,970	10,621	6,773	10,428	1,749	1,74,412
Grand Total Rupees...	42,648	1,417	13,120	9,694	3,863	20,424	46,039	23,398	20,487	14,798	1,07,322	26,560	4,78,147

B.—Statement showing the quantity of timber felled departmentally in the several forests during the official year 1872-73.

Ranges.	Division of the Ranges.	Teakwood.		Ebony or Blackwood.		Rosewood.		Sandalwood.		Red Saunder roots or posts.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11	12
		C. FT	Rs. A. P.	C. FT.	Rs. A. P.	C. FT.	Rs. A. P.	C. FT.	Rs. A. P.	C. FT. MDS.	Rs. A. P.
Gumsur and Suradah...	Gumsur and Suradah... ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Golcondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	Cuddapah	.....	.....	.....	.....	.....	.....	.....	.....	82,447 Mds 3,305 c. ft.	12,058 1 3
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Arcot... ...	Vellore...	.....	.....	.....	.....	.....	.....	40	120 0 0	.....	.....
	Kurkumbady...	.....	.....	.....	.....	.....	.....	.....	.....	976	1,199 0 0
South Arcot... ...	Chengum...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Trinomallai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trichinopoly...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	Pariacolum	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tinnevelly	Tinnevelly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Annamallai	Leased Forest	3,334	2,487 8 6	.....	.....	6,462	3,775 12 0	.....	.....	.....	.....
Bhowany	Bhowany	.....	.....	.....	.....	.....	.....	5,933	10,382 5 0	.....	.....
	Neringepett...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Erode	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Collegal	Collegal...	.....	.....	.....	.....	.....	.....	4,039	6,525 2 0	.....	.....
	Bylore	.....	.....	90	45 0 0	.....	.....	.....	.....	.....	.....
	Buswanathum jungle... ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Segur and Sattiamungalum ...	Tullamallai	.....	.....	.....	.....	.....	.....	2,902	4,917 6 0	.....	.....
	Sathiamungalum...	37	18 10 0	113	56 12 0	.....	.....	.....	.....	.....	.....
	Hossanoor	.....	.....	89	44 12 0	.....	.....	.....	.....	.....	.....
	Gazulhutty	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mettapoliem...	Mettapoliem...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bolumputty	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mudumallai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem	Denkincottah...	2,109	1,270 7 3	.....	.....	.....	.....	2,250	7,030 13 0	.....	.....
	Tripatore	5,716	4,419 0 2	.....	.....	.....	.....	165	515 6 0	.....	.....
South Canara	South Canara	.....	.....	3,150	2,559 6 0	.....	.....	.....	.....	.....	.....
Wynaad...	Chidlette...	3,836	1,918 6 0	.....	.....	.....	.....	.....	.....	.....	.....
	Coodracote	2,297	1,148 8 0	303	113 7 0	.....	.....	.....	.....	.....	.....
Nelambur	Nelumboor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chenat Nair...	Sholacaray	2,137	579 3 9	.....	.....	.....	.....	.....	.....	.....	.....
	Total...	19,466	11,841 11 8	3,745	2,819 5 0	6,462	3,775 12 0	15,329	29,491 0 0	4,281 c. ft. 82,447 Mds.	13,252 1 3

B.—Statement showing the quantity of timber felled departmentally in the several forests during the official year.—(Concluded.)

Ranges.	Division of the Ranges.	Other Junglewood used as Timber.		Bamboos.		Railway Fuel.		Saplings.		Forest produce.		Total.
		Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity.	Value.	Quantity	Value.	
		13	14	15	16	17	18	19	20	21	22	23
		C. FT.	RS. A. P.	NO.	RS. A. P.	TONS.	RS. A. P.		RS. A. P.	MDS.	RS. A. P.	RS. A. P.
Gumsur and Suradah ...	Gumsur and Suradah	1,952	579 10 0	.....	.....	.....	.....	.....	.....	.....	.....	579 10 0
Golcondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	Cuddapah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,053 1 3
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Arcot	Vellore	257	172 0 0	.....	.....	.....	.....	.....	.....	.....	.....	292 0 0
	Kurkumbady	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,199 0 0
South Arcot	Chengum	467	297 11 8	.....	.....	.....	.....	.....	.....	147	119 10 3	417 5 11
	Trinomallai	344	170 13 6	.....	.....	.....	.....	.....	.....	.....	.....	170 13 6
Trichinopoly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	Pariacolum	7,715	7,318 3 11	.....	.....	.....	.....	.....	.....	.....	.....	7,318 3 11
Tinnevelly	Tinnevelly	593	731 14 9	.....	.....	.....	.....	.....	.....	.....	.....	731 14 9
Anamallai	Leased Forest	685	384 4 6	.....	.....	.....	.....	.....	.....	.....	.....	6,647 9 0
Bhowany	Bhowany	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,382 5 0
	Neringepett	.....	.....	.....	.....	20	60 0 0	.....	.....	.....	.....	60 0 0
	Erode	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Collegal	Collegal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,525 2 0
	Bylore	1,584	792 0 0	.....	.....	.....	.....	.....	.....	.....	.....	837 0 0
	Buswanathum jungle	293	146 14 0	.....	.....	.....	.....	.....	.....	.....	.....	146 14 0
Segur and Sattiamungalum.	Tullamallai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,917 6 0
	Sathiamungalum	247	123 10 0	.....	.....	.....	.....	.....	.....	.....	.....	199 0 0
	Hossanoor	351	175 2 0	.....	.....	.....	.....	.....	.....	.....	.....	219 14 0
	Gazalhutty	161	80 2 0	.....	.....	.....	.....	.....	.....	.....	.....	80 2 0
Mettapoliem	Mettapoliem	.....	.....	.....	.....	100	300 0 0	.....	.....	.....	.....	300 0 0
Bolumputty	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mudumallai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem	Denkincottah	.....	.....	.....	.....	.....	.....	.....	.....	36	42 8 0	3,343 12 3
	Tripatore	.....	.....	.....	.....	.....	.....	.....	.....	182	632 7 11	5,566 14 1
South Canara	South Canara	17,785	7,785 10 3	16,000	480 0 0	.....	.....	.....	.....	.....	.....	10,825 0 3
Wynaad	Chidlette	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,918 6 0
	Coodracote	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,261 15 0
Nelambur	Nelumboor	.....	.....	.....	.....	.....	.....	531	397 14 10	.....	.....	397 14 10
Chenat Nair	Sholacaray	2,200	904 2 0	.....	.....	.....	.....	.....	.....	.....	.....	1,483 5 9
	Total ...	34,634	19,662 2 7	16,000	480 0 0	120	360 0 0	.....	397 14 10	365	794 10 2	82,874 9 6

C.—*Statement showing the sale of Timber, etc., in the several forests during the official year* 1872-73.

Ranges.	Name of Depôt.	Teakwood.		Ebony or Black-wood.		Rosewood.		Sandalwood.		Red saunder roots or posts.	
		Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.
1	2	3	4	5	6	7	8	9	10	11	12
		C. F.	Rs. A. P.	C. F.	Rs. A. P.	C. F.	Rs. A. P.	Mds.	Rs. A. P.	Mds.	Rs. A. P.
Gumsur and Suradah.	Russelcondah ...	...	.....	...	.....	...	.....	...	.....	...	.....
	Gopaulpore ...	...	.....	...	.....	...	.....	...	.....	...	.....
Golcondah ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Cuddapah ...	Codoor	...	.....	...	.....	...	.....	...	.....	12,271	20,686 4 0
Bellary	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Kurnool ...	Nundial	...	.....	...	.....	...	.....	...	.....	...	.....
	Kurnool	154	154 1 0	...	.....	...	.....	...	.....	...	.....
	Cumbum	...	.....	...	.....	...	.....	...	.....	...	.....
North Arcot...	Kurcumbady ...	...	.....	...	.....	...	.....	...	.....	11,800 c. f. 593	3,260 10 10
	Vellore	...	.....	...	.....	...	.....	436	2,143 9 8	...	.....
South Arcot...	Chengum	...	.....	...	.....	...	.....	...	.....	...	.....
	Trinomallay ...	...	.....	...	.....	...	.....	...	.....	...	.....
Trichinopoly ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Madura ...	Pariacolum ...	16	24 5 4	51	64 10 0	...	.....	...	.....	...	.....
	Cumbum	26	32 12 4	133	149 8 0	...	.....	...	.....	...	.....
	Palani	...	.....	...	.....	...	.....	...	.....	...	.....
	Chutraputty ...	...	.....	...	.....	...	.....	...	.....	...	.....
	Madura	221	374 0 7	49	71 0 9	...	.....	...	.....	...	.....
Tinnevelly ...	Tinnevelly... ...	...	.....	...	.....	...	.....	...	.....	...	.....
Anamallay...	Pothanore... ...	...	4,496 1 1	...	.....	...	.....	...	.....	...	.....
	Coimbatore ...	...	940 13 9	...	.....	...	370 15 5	...	.....	...	.....
	Anamallay ...	...	1,677 12 6	...	.....	...	.....	...	.....	...	.....
Bhowany ...	Bhowany	...	.....	...	.....	...	.....	6,065	20,000 0 0	...	.....
	Erode	...	.....	...	.....	...	.....	...	.....	...	.....

C.—*Statement showing the sale of Timber, etc.*—(Continued.)

Range.	Name of Depôt.	Teakwood.		Ebony or Blackwood.		Rosewood.		Sandalwood.		Red Saunder roots or posts.	
		Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.
		13	14	15	16	17	18	19	20	21	22
		C. F.	Rs. A. P.	C. F.	Rs. A. P.	C. F.	Rs. A. P.	C. F.	Rs. A. P.	C. F.	Rs. A. P.
Collegal ...	Collegal	...	.....	...	.....	...	.....	5,187	17,000 0 0	.....	.....
	Buswanathum Jungle	...	.....	...	.....	...	.....	...	.....	.....	.....
Sigur and Satimangalum.	Tullamallai ...	...	.....	...	.....	...	.....	4,226	14,000 0 0	.....	.....
	Sigur...	1,265	835 7 6	...	.....	...	.....	...	.....	.....	.....
	Sathiamangalum.	...	.....	14	18 7 0	...	.....	34	33 12 0	.....	.....
	Gazulhutty ...	...	.....	...	.....	...	.....	7	8 7 0	.....	.....
Mettupoliem ...	.....	...	.....	...	.....	...	.....	...	.....	.....	.....
Bolumputty ...	Coimbatore ...	...	2 12 5	...	.....	...	.....	...	.....	.....	.....
Mudumullay...	Mysore	29,803	29,803 2 8	...	.....	...	.....	...	.....	.....	.....
	Mudumullay ...	15	22 14 0	...	.....	...	.....	...	.....	.....	.....
	Ootacamund ...	8,237	16,117 7 10	...	.....	...	.....	...	.....	.....	.....
Salem	Denkincottah ...	...	.....	...	.....	...	.....	1,131	4,006 7 0	.....	.....
	Penagaram ...	...	.....	...	.....	...	.....	...	.....	.....	.....
	Tripatore	...	.....	...	.....	...	.....	76	272 13 9	.....	.....
	Vaniembady ...	...	.....	...	.....	...	.....	...	.....	.....	.....
	Harroor	...	.....	...	.....	...	.....	...	.....	.....	.....
	Salem...	...	.....	...	.....	...	.....	66	162 0 3	.....	.....
South Canara...	South Canara ...	...	.....	49	46 3 0	...	.....	...	.....	.....	.....
Wynaad ...	Mannantoddy ...	...	387 1 0	...	.....	...	.....	...	.....	.....	.....
	Mysore	...	21,174 2 9	...	.....	...	.....	...	.....	.....	.....
Nelumbur ...	Nelumbur	2,684	2,070 14 9	302	257 2 7	...	.....	...	.....	.....	.....
Chenat Nair...	Pothanore	...	573 0 0	...	.....	...	.....	..	.....	.....	.....
	Coimbatore ...	...	101 1 5	...	.....	...	15 4 3	...	.....	.....	.....
	Total...	42,421	78,787 14 11	598	606 15 4	...	386 3 8	17,228	57,627 1 8	24,071m. 593 c. ft.	23,946 14 10

C.—*Statement showing the sale of Timber, etc., in the several forests during the official year* 1872-73.—(Continued.)

Ranges.	Name of Depôt.	Other Junglewood used as Timber.		Railway Fuel and Firewood.		Bamboos.		Forest produce.		Saplings.		Total amount of value realized.
		Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	
		23	24	25	26	27	28	29	30	31	32	33
		C. F.	RS. A. P.	TONS.	RS. A. P.	NO.	RS. A. P.	MDS.	RS. A. P.	NO.	RS. A. P.	RS. A. P.
Gumsur and Suradah.	Russelcondah ...	1,458	361 2 0	...	.....	...	.....	...	.....	...	.....	361 2 0
	Gopaulpore ...	727	304 8 0	...	.....	...	.....	...	.....	...	.....	304 8 0
Golcondah ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	.....
Cuddapah ...	Codoor	1,455	1,197 15 7	...	.....	...	.....	...	.....	...	.....	21,884 3 7
Bellary	.....	...	.....	...	.....	...	.....	...	.....	...	.....	.....
Kurnool ...	Nundial	42	24 4 0	...	.....	...	.....	...	.....	...	.....	24 4 0
	Kurnool	...	.....	...	.....	...	.....	...	.....	...	.....	154 1 0
	Cumbum	300	239 13 4	...	.....	...	.....	...	.....	...	.....	239 13 4
North Arcot.	Kurcumbady ...	...	.....	...	.....	...	.....	...	.....	...	.....	3,260 10 10
	Vellore	...	.....	...	.....	...	.....	...	.....	...	.....	2,143 9 8
South Arcot...	Chengum	593	888 11 4	5	25 10 0	...	.....	8	8 9 6	...	.....	922 14 10
	Trinomallay ...	554	419 7 7	...	.....	...	.....	...	.....	...	.....	419 7 7
Trichinopoly ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	.....
Madura ...	Pariacolum ...	495	613 0 7	...	.....	...	.....	...	.....	...	.....	701 15 11
	Cumbum	615	692 7 0	...	.....	...	.....	...	.....	...	.....	874 11 4
	Palany	99	111 9 5	...	.....	...	.....	...	.....	...	.....	111 9 5
	Chuttraputty ...	112	126 7 0	...	.....	...	.....	...	.....	...	.....	126 7 0
	Madura	1,288	1,836 5 5	...	.....	...	.....	...	.....	...	.....	2,281 6 9
Tinnevelly ...	Tinnevelly... ...	2,280	3,612 7 8	...	.....	...	.....	...	.....	...	.....	3,612 7 8
Anamallay ...	Pothanore... ...	...	.....	...	.....	...	.....	...	.....	...	.....	4,496 1 1
	Coimbatore ...	...	795 0 9	...	.....	...	.....	...	.....	...	.....	2,106 13 11
	Annamallay ...	...	.....	...	.....	...	.....	...	.....	...	.....	1,677 12 6
Bhowany ...	Bhowany	...	.....	...	.....	...	.....	...	.....	...	.....	20,000 0 0
	Erode	...	.....	581	3,487 8 0	...	.....	...	.....	...	.....	3,487 8 0

C.—*Statement showing the sale of Timber, etc.*—(Continued.)

Ranges.	Name of Depôt.	Other Junglewood used as Timber.		Railway Fuel and Firewood.		Bamboos.		Forest produce.		Saplings.		Total amount of value realized.
		Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	
		34	35	36	37	38	39	40	41	42	43	44
		C. F.	Rs. A. P.	Tons.	Rs. A. P.	No.	Rs. A. P.	Mds.	Rs. A. P.	No.	Rs. A. P.	Rs. A. P.
Collegal ...	Collegal	...	.....	...	.....	...	.....	...	.....	...	.....	17,000 0 0
	Buswanathum Jungle	148	148 8 0	...	.....	...	.....	...	.....	...	.....	148 8 0
Sigur and Sathiamangalum.	Tullamallai ...	...	.....	...	.....	...	.....	...	.....	...	.....	14,000 0 0
	Sigur	...	.....	...	.....	...	.....	...	.....	...	.....	835 7 6
	Sathiamangalum.	...	.....	...	.....	...	.....	...	.....	...	.....	52 3 0
	Gazulhutty ...	...	.....	...	.....	...	.....	...	.....	...	.....	8 7 0
Mettupoliem ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	.....
Bolumputty ...	Coimbatore ...	...	.....	...	.....	...	.....	...	.....	...	.....	2 12 5
Mudumullay ..	Mysore	...	.....	...	.....	...	.....	...	.....	...	.....	29,803 2 8
	Mudumullay ...	...	.....	...	.....	...	.....	...	.....	...	.....	22 14 0
	Ootacamund ...	...	.....	...	.....	...	.....	...	.....	...	.....	16,117 7 10
Salem	Denkincottah ...	2,691	2,523 8 7	...	.....	...	.....	111	206 3 0	...	.....	6,736 2 7
	Penagaram ...	252	128 1 10	...	.....	...	.....	...	.....	...	.....	128 1 10
	Tripatore	2,663	2,274 4 3	...	.....	...	.....	41	474 15 3	...	.....	3,022 1 3
	Vaniembady ...	396	295 14 11	...	.....	...	.....	...	.....	...	.....	295 14 11
	Haroor	376	313 1 0	...	.....	...	.....	...	.....	...	.....	313 1 0
	Salem	9	24 12 6	...	.....	...	.....	...	.....	...	.....	186 12 9
South Canara...	South Canara ...	6,179	3,682 9 0	...	.....	34,090	1,513 10 6	...	.....	...	.....	5,242 6 6
Wynaad ...	Manantandy ...	...	.....	...	.....	...	.....	...	.....	...	.....	387 1 0
	Mysore	...	.....	...	.....	...	.....	...	.....	...	.....	21,174 2 9
Nelumbur ...	Nelumbur	16,139	5,477 7 10	b. 1126	251 8 0	20,276	1,674 14 0	...	.....	11,229	7,378 14 0	17,110 13 2
Chenat Nair...	Pothanore... ...	...	.....	...	.....	...	.....	...	.....	...	.....	573 0 0
	Coimbatore ...	...	150 15 0	...	.....	...	.....	...	.....	...	.....	267 4 8
	Total ...	c. f. 38,871	26,242 6 7	t. 586 b.1,126	3,764 10 0	54,366	3,188 8 6	160	689 11 9	11,229	7,378 14 0	2,02,619 5 3

D.—*Statement showing the particulars of Stock in hand at the commencement and close of the official year* 1872-73 *in the several Forests.*

Ranges.	Teak in cubic feet.	Amount.	Ebony or Blackwood in cubic feet.	Amount.	Rosewood in cubic feet.	Amount.	Saundal-wood in Maunds.	Amount.	Red Saunder roots or posts.	Amount.
1	2	3	4	5	6	7	8	9	10	11
		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.
Gumsur and Surada	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Goloondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	.....	.....	.....	.....	.....	.....	.....	.....	cubic ft 500 mds. 26,480	400 0 0 6,296 10 1
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool	82	154 1 0	.....	.....	.....	.....	.....	.....	.....	.....
North Arcot	.....	.....	.....	.....	.....	.....	396	1,188 0 0	mds. 14,936 cubic ft. 147	2,979 12 10 220 8 0
South Arcot	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trichinopoly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	670	762 11 4	107	129 5 10	.....	.....	.....	.....	.....	.....
Tinnevelly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Anamallay	71,882	1,29,005 12 3	.....	.....	12,108	8,429 0 0	.....	.....	.....	.....
Bhowany	.....	.....	.....	.....	.....	.....	1,389	4,341 0 0	.....	.....
Collegal	86	53 12 0	49	37 4 0	.....	.....	2,496	7,801 8 0	.....	.....
Sigur and Satbiamungalum	3,696	2,310 1 0	397	297 4 6	.....	.....	1,331	4,162 2 4	.....	.....
Mettupoliem	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bolumputty	42	25 2 4	.....	.....	44	56 0 6	.....	.....	.....	.....
Mudumallay	1,45,418	1,35,322 11 0	.....	.....	.....	.....	.....	.....	.....	.....
Salem	.....	.....	.....	.....	.....	.....	459	1,433 6 0	.....	.....
South Canara	217	146 3 6	4,000	2,746 0 0	.....	.....	.....	.....	.....	.....
Wynaad	36,001	29,024 1 0	.....	.....	.....	.....	.....	.....	.....	.....
Nelambur	13,036	9,776 9 2	927	695 4 0	.....	.....	.....	.....	.....	.....
Chenat Nair	2,615	1,994 13 0	.....	.....	1,389	2,191 10 6	.....	.....	.....	.....
Total...	.....	3,08,575 18 7	.....	3,905 2 4	.....	10,676 11 0	.....	18,926 0 4	.....	8,896 14 11

D.—*Statement showing the particulars of Stock in hand at the commencement and close of the official year* 1872-73.—(Concluded.)

Ranges.	Other jungle wood used as timber.	Amount.	Bamboos in cart or head loads.	Amount.	Railway. fuel or firewood in tons.	Amount.	Sapling.	Amount.	Forest produce.	Amount.	Total.
	12	13	14	15	16	17	18	19	20	21	22
		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.	RS. A. P.
Gumsur and Surada	4,058	831 0 0	.....	.....	.....	.....	.....	.....	.....	.....	831 0 0
Golcondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	2,572	3,213 13 3	.....	.....	.....	.....	.....	.....	.....	.....	8,910 7 4
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool	329	329 5 4	.....	.....	.....	.....	.....	.....	.....	.....	983 6 4
North Arcot	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,388 4 10
South Arcot	1,730	1,298 6 10	.....	.....	11½	65 10 0	.....	.....	.....	.....	1,364 0 10
Trichinopoly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	9,523	9,840 15 0	.....	.....	.....	.....	.....	.....	.....	.....	10,733 0 2
Tinnevelly	10,636	15,954 8 5	.....	.....	.....	.....	.....	.....	.....	.....	15,954 8 5
Anamallay	133	136 12 1	.....	.....	.....	.....	.....	.....	.....	.....	1,37,571 8 4
Bhowany	.....	.....	.....	.....	1,963	5,890 8 0	.....	.....	.....	.....	10,231 8 0
Collegal	117	58 15 0	.....	.....	.....	.....	.....	.....	.....	.....	7,951 7 0
Sigur and Sathiamungalum	4,193	1,717 9 11	.....	.....	.....	.....	.....	.....	.....	.....	8,487 1 9
Mettupoliem	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bolumputty	12	11 12 9	.....	.....	.....	.....	.....	.....	.....	.....	92 15 7
Mudumallay	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,35,322 11 0
Salem	1,831	1,274 6 1	.....	.....	.....	.....	.....	.....	76 Mds.	98 15 11	2,806 12 0
South Canara	41,114	20,380 7 11	.....	2,433 11 0	.....	.....	.....	.....	.....	.....	25,706 6 5
Wynaad	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29,024 1 0
Nalambur	27,094	6,967 8 5	.....	1,295 9 6	.....	.....	34,307	11,531 0 0	.....	.....	30,265 15 1
Chenat Nair	1,436	846 11 3	.....	.....	.....	.....	.....	.....	.....	.....	5,033 2 9
Total...	.....	63,362 4 3	.....	3,729 4 6	.....	5,956 2 0	.....	11,531 0 0	.....	98 15 11	4,35,658 4 10
Add total valuation of timber felled as per B...											82,874 9 6
											5,18,532 14 4
Deduct total valuation of timber sold during the year as per Statement C, Column 3...											1,73,896 13 6
											3,44,636 0 10
Add increase of value of Stock removed from outlying depôts in certain forests during the year...											53,731 13 5
Balance of Stock at the close of the year...											3,98,367 14 3

E.—*Statement showing Timber, etc., disposed of under the License and Voucher system in the several forests for the official year* 1872-73.

Ranges.	Teakwood.		Firewood and Railway Fuel.		Charcoal.		Other junglewood used as Timber.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9
	C. FT.	RS. A. P.	TONS.	RS. A. P.	TONS.	RS. A. P.	C. FT.	RS. A. P.
Gumsur and Suradah	...	.....	236	84 8 6	...	.....	45,070	2,908 4 0
Golcondah	...	.....	...	.....	...	.....	b. l. 3	3 0 0
Cuddapah	...	.....	{ 16,492 { 707	36,940 6 6 1,584 13 0	} 7	35 10 0	1,02,380	11,032 6 0
Bellary	...	.....	...	.....	...	.....	...	.....
Kurnool	...	.....	c. l. 273	55 11 0	c. l. 25,867	1,616 11 6	2,17,720	24,587 8 0
North Arcot	...	.....	c. l. 4,198	5,796 13 2	c. l. 1,065	548 7 0	34,780	3,478 2 0
South Arcot	...	.....	164	367 5 0	14	36 14 0	9,288	583 9 0
Trichinopoly	...	.....	...	573 0 6	...	.....	...	.....
Madura	...	.....	3,235	6,120 12 6	c. l. 732	732 4 0	44,361	2,345 6 1
Tinnevelly	...	.....	...	.....	...	.....	6,544	9,910 7 11
Anamallay	322	56 11 0	331	741 4 9	15	104 13 0	...	.....
Bhowany...	2,480	620 0 0	...	.....	...	.....	6,416	1,604 0 0
Collegal	460	115 0 0	...	.....	...	.....	1,748	437 0 0
Sigur and Sathiamungalum ...	53	20 0 0	c. l. 202	505 0 0	...	.....	1,689	422 2 0
Mettapoliem	...	.....	...	.....	...	.....	168	186 6 0
Bolumputty	1,998	283 6 6	969	2,186 8 3	21	109 6 3	...	.....
Mudumallay	..	.....	...	.....	...	.....	...	.....
Salem	50,896	4,087 15 9	12,122	17,268 2 5	868	1,862 1 0	...	.....
South Canara...	...	.....	1,734	7,285 8 9	10	45 0 0	2,712	1,042 13 1
Wynaad	...	.....	...	.....	...	.....	...	.....
Nelambur	...	.....	...	.....	...	.....	...	.....
Chenat Nair	...	.....	...	.....	...	.....	...	.....
Total...	56,209	5,183 1 3	35,990 c. l. 4,673	79,509 14 4	T. 935 c. l. 27,664	5,091 2 9	c. ft. 4,72,876 b. l. 3	58,541 0 1

Statement showing Timber, etc., disposed of under the License and Voucher system in the several forests for the official year 1872-73.

Ranges.	Bamboos.		Forest produce.		Ebony or Blackwood.		Rosewood.		Palmyrah.		Total.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	10	11	12	13	14	15	16	17	18	19	20
	C. L.	Rs. A. P.	Maunds.	Rs. A. P.	C. ft.	Rs. A. P.	C. ft.	Rs. A. P.	No.	Rs. A. P.	Rs. A. P.
Gumsur and Suradah...	...	.....	...	.....	...	...	...	...	...	...	2,992 12 6
Golcondah	119	37 3 0	...	.....	...	...	...	...	...	...	40 3 0
Cuddapah	1,810	664 4 0	5,550	494 0 0	...	...	...	...	38	75 0 0	50,826 7 6
Bellary	...	.....	...	.....	...	...	...	...	...	...	.....
Kurnool	14,715	3,230 15 6	...	.....	...	...	...	...	...	...	29,490 14 0
North Arcot ...	9,748	3,774 2 0	c. l. 23	399 2 6	...	...	...	...	...	...	13,996 10 8
South Arcot ...	1,306	1,020 8 6	34,200	678 0 0	...	...	...	...	...	...	2,686 4 6
Trichinopoly ...	...	.....	...	.....	...	...	...	...	...	...	573 0 6
Madura	2,128	2,214 3 11	...	.....	...	...	...	...	...	...	11,412 10 6
Tinnevelly	...	.....	...	.....	...	...	...	...	...	...	9,910 7 11
Anamallay	2,987	2,393 14 6	b. l. 1	11 0 0	...	...	...	...	...	...	3,307 11 3
Bhowany	...	.....	...	.....	68	17 0 0	...	...	...	...	2,241 0 0
Collegal	...	.....	...	.....	32	8 0 0	...	...	...	...	560 0 0
Sigur and Sathiamungalum ...	...	.....	c. l. 10	25 0 0	161	60 8 0	...	...	...	...	1,032 10 0
Mettapoliem ...	...	.....	...	.....	...	...	240	60 0 0	...	...	246 6 0
Bolumputty ...	1,189	904 12 0	mds. 113 b. l. 50	72 4 6	...	...	...	...	...	...	3,556 5 6
Mudumallay ...	...	.....	...	.....	...	...	...	...	...	...	.....
Salem	11,078	10,531 5 8	19,520	855 4 0	...	...	...	...	...	...	34,604 12 10
South Canara ...	No. 2,05,100	3,076 8 0	...	.....	...	...	...	...	36	72 0 0	11,521 13 10
Wynaad	...	.....	...	.....	...	...	...	...	...	...	.....
Nelambur	...	.....	...	.....	...	...	...	...	...	...	.....
Chenat Nair ...	...	.....	...	.....	...	...	...	...	...	...	.....
Total...	c. l. 45,080 No. 2,05,100	27,847 13 1	mds. 59,383 c. l. 84	2,534 11 0	261	85 8 0	240	60 0 0	74	147 0 0	1,79,000 2 6

F.

Ranges.	Year.	Departmentally felled.	On License.	Total.	Free.
		C. FT.	C. FT.	C. FT.	C. FT.
Central Office...	1872-73.	...	...	...	...
Gumsur and Suradah		1,952	45,070	47,022	...
Golcondah		...	...	...	...
Cuddapah		3,305	1,02,380	1,05,685	6,600
Bellary...		...	...	...	...
Kurnool		...	2,17,720	2,17,720	21,500
North Arcot		1,233	34,780	36,013	...
South Arcot		811	9,288	10,099	7,010
Trichinopoly		...	...	...	...
Madura		7,715	44,361	52,076	...
Tinnevelly		593	6,544	7,137	...
Anamallay		10,481	322	10,803	4,368
Bhowany...		...	8,964	8,964	...
Collegal		1,967	2,240	4,207	...
Segur and Sattiamungalum		998	1,903	2,901	...
Mettapoliem		...	408	408	...
Bolumputty		...	1,998	1,998	304
Mudumallay		...	...	...	...
Salem		7,825	50,896	58,721	53,584
South Canara...		20,935	2,712	23,647	...
Wynaad...		6,436	...	6,436	...
Nelambur		...	...	...	...
Chenat Nair		4,337	...	4,337	...
Total Cubic Feet...		68,588	5,29,586	5,98,174	93,446

No. 1,779.

OOTACAMUND,
15th May 1873.

From

MAJOR R. H. BEDDOME,
Inspector of Forests,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue.

SIR,—WITH reference to the G. O., No. 322, of the 15th of March last, paragraph 3, and No. 454 of the 5th instant, I have the honour to forward the following report for transmission, through the Board, to Government:—

1. The Inspector of Forests has, in accordance with the G. O., No. 1,526, of the 8th November last, visited the following districts:—Tinnevelly, Madura, Coimbatore, Trichinopoly, Tanjore, Salem, Cuddapah, Kurnool, North Arcot, Nellumbur, South Canara, and Wynaad; and in each district he has had a personal conference with the Collector and forest officer, and, after handing over the establishments and explaining the system of operations hitherto in force, he has fully discussed contemplated operations, explaining what appeared necessary for more efficient conservancy and the proper development of forest resources. His tours have been rapid. As his object was to hand over the establishments in each district, and place all on a satisfactory footing under the new system as soon as possible, he did not, therefore, remain as long in each range as usual when on tour, or go out of his way to inspect operations in the different forests or plantations, which is generally the object of his tours.

2. *Tinnevelly.*—The Inspector was met by the Deputy-Conservator, Mr. Hayne, in the ghaut-forests of his range, and, after a short inspection of some of the forests, he proceeded to Tinnevelly and handed over the establishment, etc., to the Collector, and fully discussed working operations, etc. The Collector had introduced several innovations quite at variance with the system in force in other districts, he wished to entirely shut up large tracts of the ghaut-forests, not allowing any felling whatever, and he had also put a stop to all the revenue on firewood, even when cut for sale. After these questions had been fully discussed in all their bearings, he agreed to alter these arrangements.

3. The fuel-reserves in tank-beds, river, and channel-banks in the vicinity of Palamcottah originally commenced for railway fuel purposes are chiefly imperial, but some are necessarily retained for local purposes; it is necessary to separate the two, and, if the Forest Overseer is employed upon both, a portion of his salary should be debited to Local Funds. These plantations, which are chiefly of the Umbrella thorn

and other Acacias, promise to be a complete success, but it is necessary that precautions should be taken to exclude cattle. A map should be prepared showing the situation, area, and contents of each, and clearly marking in different colours those that are imperial and those that are local.

4. The Collector, Mr. Puckle, takes a great interest in the preservation of the ghaut-forests in connection with the irrigation of his district, and the question is one of the greatest importance.

5. There are many tracts of forests in the possession of Zemindars and others, and the boundaries of these and the boundaries between the Government and the Travancore Sirkar forests are not clearly laid down. A careful survey and demarcation of all the forests in this district is much required.

6. Mr. Hayne, the forest officer, is pains-taking and attentive; he might be called upon to pass in surveying, as a knowledge of this is much required in his work.

7. *Madura.*—The Deputy-Conservator met the Inspector at Madura, but the Collector was absent at the south of the Cumbum valley. After visiting some of the forests with the forest officer, the Inspector met the Collector at Periakolum, handed over the range, and explained and discussed contemplated operations, etc.

8. There is nothing particular to report in this range. The forest officer, Mr. Williams, is well up in his work, and is a good surveyor. A proper demarcation and survey of all Government forests is a great want.

9. *Coimbatore.*—All the forests in this district were handed over to the Collector, and operations, etc., explained and discussed.

10. It was proposed that the forests on the eastern slopes of the Nilgiris, all the Bhowany forests and the Bolamputty forests should be formed into a separate range under one officer to be worked under the orders of the Collector of this district. This new range is a very important one, now that the railway from Coimbatore to Mettapolliem has been finished. These arrangements have been sanctioned in the G. O., No. 328, of 15th March 1873.

11. Some of the most valuable forests in the Presidency are in this Collectorate, *i.e.*, the Anamallay forests, fifty miles south of Coimbatore, and the Collegal, Bhowany, and Suttiamungalum forests and Sandalwood tracts. All to the north, besides the new range just mentioned and the Sholaykurray forests, it is impossible that the Collector can visit or supervise operations in many of these tracts. At present he has two very good forest officers, *i e.*, Colonel Morgan and Mr. Douglas, who both thoroughly understand their work.

12. *Trichinopoly.*—The plantations in this district were handed over to the Collector. Mr. Morgan, the young officer in charge, has been constantly sick, and it is feared that no very great progress towards forming good permanent railway fuel plantations has yet been made. Planting must be undertaken on a larger scale, and cattle must be excluded from the plantations before satisfactory results can be attained. The great rise in the price of coal has given increased importance to this work, and it is very important that it should receive special attention from the Collector and his Assistants. Colonel Morgan calculates that wood-fuel can be

supplied to the Great Southern India line (from the forests above Erode) as far as Caroor, but beyond that point its price would rise so much that it would not be taken by the railway, unless coal rose to Rs. 30 per ton. The supply of fuel, therefore, below Caroor devolves upon Trichinopoly and Tanjore, and the paduga lands all along the banks of the Cauvery and Coleroon from above Caroor to some miles below Trichinopoly (where it all becomes private property) are, if properly treated, admirably adapted for the growth of Babool, other Acacias, and the *Cassia fiorida*, which are our best fuel-trees. They are, however, infested with herds of semi-wild cattle, and little can be attempted with any chance of success, unless these are excluded by the Revenue authorities by fencing or other means. The question is one of very great importance, and should receive early attention by the Collectors of Trichinopoly and Tanjore in consultation with the Agent of the Great Southern India Railway.

13. *Tunjore.*—A small commencement has been made with plantations in this district, and everything was handed over to the Collector. A 1st-class Overseer, on Rs. 130, with a writer and staff had, been appointed during the Inspector's absence; but these were quite uncalled for, and their services were dispensed with. A few gardeners or maistries, at 8 or 10 Rs. each monthly, is all that is required at least for the present, and these should be under the supervision of the forest officer of Trichinopoly.

14. The Collector of this district quitted it for good almost immediately after the Inspector had handed over and explained what was required, etc.

15. *Salem.*—The establishments in this district were handed over to the Collector. Mr. Brougham, the Acting Deputy-Conservator, is thoroughly up to his work, and is a good surveyor, and everything is in good working order. The system of railway fuel-reserves is nearly complete in this range, and it is believed that all the required tracts have been handed over to the department. A good map of them is required.

16. *Cuddapah.*—The establishment was handed over to the Collector, and forest matters and future operations, etc., fully discussed.

17. The Red Sanders has been yielding an enormous revenue in this district, but the special department has hitherto only had charge of the eastern or Codoor side of the chain of mountains running from Tripetty in a north-west direction up to Cuddapah. Large tracts of this tree are also found on the western or Rachotee side of the same range, and the Collector agreed that it was highly desirable that all these should also be placed under the Forest Department. The Inspector has not yet heard if this has been done, but if not, he trusts that it may receive early attention.

18. Mr. Yarde, the forest officer, is well up to his work, but he might be required to pass in surveying.

19. The system of railway fuel-reserves has not been quite completed in this range, as some of the tracts have not yet been handed over to the department, or had not at the date of the Inspector's visit. It is difficult to understand what has been the cause of the delay, and the subject should receive immediate attention.

20. The Red Sanders plantation was visited by the Inspector; it is a great success, and will, it is believed, pay well ; the planting of this tree should, if possible, be extended.

21. The railway fuel plantations at Gooty, Camalapore, Reddapilly, etc., on open bare land and poor soil are not at all promising, and it is feared that they will never pay; the rain-fall is not sufficient or rather not continuous enough to make tree growing remunerative. The trees reared during the rainy months are mostly killed off by the drought and heat during the first five months of the year, and the floods in October and November are sometimes so great and sudden that acres of young plants are washed right away. The expenditure on these plantations has, from some time since, been reduced to a minimum ; anything like regular planting out in pits or trenches will not, it is feared, ever pay, and should not be pursued, except as a supplementary measure. Advantage must be taken of wet weather to plough and sow broad-cast, and this should be persisted in until a good growth is obtained. This plan has been very successful in several spots, and it is inexpensive, and should be persisted in, even if constant failures should be reported. In any case, the fuel-reserves (in all cases natural jungles), not the plantations, must be looked to as a source of supply for locomotive fuel, and their up-keep must receive careful attention.

22. *Kurnool.*—The Inspector met the Collector and the Forest Assistant at Kurnool, and conservancy arrangements, etc., were fully discussed.

23. Smuggling is very rife in this district, and the Assistant reported that wholesale theft went on most systematically in some of the Government tracts abutting on private forests, and that he was quite unable to check it. The possession of a few acres of jungle or forest apparently enables any man to carry on a large timber-trade: he issues his licenses, and the possessors of these enter the Government forests indiscriminately, taking care, however, generally to do so at night, or when they know that none of the forest establishment are near. Nothing can be done, unless they are actually caught in the act of felling, and, even then, they are seldom punished (the timber only being confiscated) and the real instigator can always secure himself by saying that his licenses are only to fell in his private jungle, and that it is not his fault if the wood-cutters go by mistake beyond his limits. The Collector stated that he would endeavour to put a stop to this systematic smuggling, and it appears that since the Inspector's visit he issued a Circular upon this and other points. This Circular has, however, been entirely cancelled by the Board of Revenue. It was not drawn up by the Inspector, or even submitted for his approval or remarks; in fact, he never even saw it or heard of its existence, until it was forwarded to him by the Board.

24. The forests of the Nullaymallay mountains are a very valuable tract, and there are few or no communal rights in them. They are by far the finest tract on the eastern side of the Presidency, and they yield a very considerable revenue to Government; their importance at present, however, is much less than many inferior forests in districts to the south, such as Cuddapah, Arcot, and Salem, as no railway runs near them. At some future date, their value may become very

greatly enhanced, and this should be borne in mind; for the present, unless tracts are given up for cultivation (generally only an excuse for entering on a trade in timber and smuggling), their situation and the unhealthiness of the climate are sufficient to conserve them.

25. Mr. Boileau, the young Forest Assistant, is very young and inexperienced, and will want constant supervision.

26. The Collector of this district quitted it for good just after the Inspector had handed over the establishment, and gone fully into working arrangements, etc.

27. *North Arcot.*—The Inspector met the then Acting Collector at his head-quarters at Chittoor, and held a forest conference with him and his Forest Assistant, and there was ample evidence to show that the conservancy arrangements in this important district so near the Presidency and traversed by two railways was in a perfect chaos, — facts which have, on several occasions during the last four years, been brought to the notice of Government and the Board by the Conservator of Forests.

28. The Forest Assistant pointed out—

Firstly.—That some of the finest forests in the district situated in the Goriattum and Chendragherry Taluqs had never been handed over to the Special Department, though they were imperial forests to all intents and purposes; that these tracts were under no proper management or supervision; and that the revenue annually lost to Government was very great, and the openings given to smuggling such that it rendered the proper conservancy of the forests under him a question of the greatest difficulty, if not impossible.

Secondly.—That the system of granting *free passes* to ryots when felling timber for agricultural purposes had never been introduced into this district (though in force in the rest of the Presidency), as the Collector had been opposed to it; ryots, therefore, cut timber when and how they liked without any reference to quantity, and under no control or supervision which rendered all attempts to check smuggling quite futile.

Thirdly.—That firewood was allowed to be cut *for sale* throughout the district without any charge for seigniorage, though this was quite opposed to the orders of Government, and the system in force in other districts; the monthly supply of firewood to the town of Vellore alone represented in its seigniorage a very large sum.

Fourthly.—That the system of railway fuel-reserves had not been finally settled, as the reserve of 6 square miles in the Goriattum Taluq marked out by one of the Collector's Head Assistants, and afterwards demarcated, had never yet been handed over to the department. Mr. Whiteside, the Acting Collector (since confirmed), stated that he had been alternately in charge of the district with Mr. Robinson for some time past, and that he was aware that conservancy arrangements were in anything but a satisfactory state; that he himself was much in favour of conservancy, but that all the arrangements he had made in this direction had always been at once upset by Mr. Robinson, the Collector, on his return. He agreed with the Inspector that the Goriattum and Chendragherry forests should be

placed under the Special Department, and that the Amboor tract ought to be given up as a railway fuel-reserve, remarking that, when he was Acting Collector, he had himself caused it to be marked out by his Head Assistant, and the question of grazing rights, etc., carefully inquired into, but that the arrangements had subsequently been set aside during his absence on the report of a Gumastah or some very subordinate officer; and he also agreed that all firewood cut for sale should pay the usual seigniorage, stating, at the same time, that it had lately come to his notice that even the Engine Drivers were carrying on a fuel-trade with Madras on their own account as they were able to obtain fuel for export from the district at a very cheap rate, as it paid no seigniorage.

29. The Inspector drew up a memorandum on all these points, and the Acting Collector promised to endeavour to obtain the sanction of the Board to carry out the arrangements that he thought necessary; he has since requested the Board to obtain the sanction of Government for the transfer of the Goriattum and Chendragherry forests to the Special Department to enable him to introduce an improved system of conservancy, and to check the smuggling of wood and fuel which he states goes on to an enormous extent. This was referred to the Inspector of Forests, *vide* Proceedings of the Board, No. 171, dated 7th February last, and the Inspector's report is recorded in the Board's Proceedings, No. 626, of the 23rd April last, upon which the Board again refer the question to the head of the Collectorate in North Arcot for further report remarking that no change which extinguishes any communal rights can be allowed. Mr. Whiteside, the Collector, is unfortunately absent in England, and the question, therefore, comes before a man quite new to the district, and who probably knows nothing of the subject; it may, however, be mentioned that no extinction of communal rights was ever contemplated. This is how the matter stands at present with reference to the transfer of the forests. But of what may or may not have been done with reference to handing over the fuel-reserve or to introducing the sanctioned seigniorage upon firewood or the *free pass* system for timber cut by ryots the Inspector is quite in the dark.

30. The Inspector wishes to draw the attention of Government to the following facts to prove that his department is not to blame for the very unsatisfactory state of conservancy in this district.

31. In November 1868, the Conservator endeavoured to get the Goriattum forests placed under his department, and the Board of Revenue agreed with him that they should be handed over, *vide* Proceedings of the Board, No. 7,709, of the 28th October 1868, recorded in the Government Order, No. 2,909, dated 20th November 1868.

In G. O., No. 213, dated 25th January 1869, Government sanctioned an establishment for this purpose.

In Proceedings of the Board, No. 7,679, dated 15th October 1869, the Collector was ordered to carry out the transfer of these forests.

In G. O., No. 441, dated 4th April 1870, the question of the transfer was ordered to lie over until the Board's Proceedings, dated 18th January 1870, No. 353, were disposed of.

32. In April 1871, the Conservator requested Government to transfer the Chendragherry forests, *vide* G. O., No. 769, of the 3rd May 1871. Government were not disposed to pass orders on the subject until the question of forest administration was disposed of.

33. In May 1871, Mr. Whiteside, the Acting Collector, deputed his Head Assistant, in conjunction with the forest officer, to select and mark out tracts for the railway fuel-reserves. This was most carefully done, and the largest and finest tract selected was one in the Amboor jungles, which measured six square miles. This was surrounded by many square miles of open forest and grazing ground, and it was handed over to the department, *vide* Proceedings of the Board, No. 1,943, dated 10th May 1871. The Board of Revenue afterwards remarked that it did not appear that sufficient inquiry had been made as to whether there were any communal or other rights. Government, however, remarked that it appeared that the village authorities had everywhere present, and that no complaints had been recorded, (*vide* G. O., No. 954, dated 30th May 1871). Subsequently the Forest Department took over charge of this tract and demarcated it with stones and commenced fencing it in, and the Conservator of Forests reported that the railway fuel-reserve arrangements had been completed in this district, and this received the sanction of Government (*vide* G. O., No. 971, dated 1st June 1871). These arrangements were afterwards upset by the Collector as explained by the Acting Collector.

34. Casuarina planting in the sandy beds of rivers and such like tracts has been a most complete success in this district, and will be very profitable: trees which have only cost up to date about 1½ Annas could now be sold at 1½ Rs. each, although they are scarcely a third towards maturity. These plantations should be extended wherever it is possible. A Sandalwood plantation should be commenced on the Balaghaut where the tree grows well. All the Red Sanders tracts in the district should be worked under one and the same system by the forest officer. All these subjects were fully explained to the Collector by the Inspector.

35. Mr. Sheffield, the forest officer, is an excellent forester, and thoroughly understands his work; he has, however, had no chance of getting this district into good working order, as he has been frustrated in most of his attempts in this direction, and ever since he has been in the district the orders he has received and the arrangements that have been sanctioned one day have been liable to be cancelled the next; he very properly complains that conservancy has been impossible under these conditions. A knowledge of surveying is very necessary, and Mr. Sheffield might be called upon to pass in this.

36. *South Canara.*—The Inspector met the Collector and his Forest Assistant at Mangalore, and forest conservancy, future operations, etc., were fully discussed.

37. There is not much calling for special report in this range. The management of the catechu jungles in the plains of the Condapore Taluq, and the cardamom tracts in the ghaut-forests require the Collector's attention and a small Sandalwood plantation might be commenced above ghauts in the Condapore Taluq; the Collector was furnished with a memorandum on these subjects. A suitable timber

depôt at Mangalore is a desideratum; this subject was also discussed, and the Collector promised to give it his attention.

38. *Malabar, Nellumbore Plantations, Wynaad, Mudumallay, etc.*—The Inspector visited the Conolly Teak plantations at Nellumbore, and he also went through a portion of the Wynaad forest with the Wynaad forest officer; and he met the Collector at Calicut, and handed over the different establishments to him. There is nothing special to report in this range. The Collector takes a great interest in the Nellumbore Teak plantations, and he can easily look after these and supervise operations; but it will be difficult for him to pay attention to operations in, or ever visit the Wynaad Teak belt, which is on the confines of Mysore. He also stated that it was impossible for him to take charge of, or ever visit Mudumallay, although this is a continuation of the Wynaad Teak belt and in the Malabar District, and he advised that this should be placed under the Collector of Coimbatore or the Commissioner of the Nilgiris; but it is not clear how this can be managed when the tract in question is not in their districts, and they cannot well pass orders or carry them into effect if passed beyond their districts; it, therefore, remains an open question as to what Collectorate the Mudumallay forests should be under. He was anxious to have the whole of the Annamallay forests placed under him as the leased portion of the Teak forest is in Malabar. These forests, however, have always been under the Collector of Coimbatore. The Government portion of the Teak tract is in the Coimbatore Collectorate, and all the rest of the hills and forests which comprise a very large area running right away east to their junction with the Pulnies are also in that Collectorate, and every portion is much more accessible from Coimbatore; the Inspector, therefore, cannot recommend this transfer, and it would never answer to place different portions of a regular Teak forests like that of the Anamallays under two Collectorates.

39. The forest officer of the Wynaad range, Mr. Peet, is young, and with little experience of the country and natives, and will require much supervision.

40. The Inspector is of opinion that the new system of placing the department in each district under the Revenue authorities will answer well, and be, in some ways, an improvement upon the old system, if a trained Forest Department is kept up under Collectors, and if the whole is under the direction of the Inspector, subject, of course, to the control of the Board and Government; he would, however, deprecate any tendency to do away with a trained department. Collectors have such very different views on the subject of conservancy, and many care so little about it, and will never run the risk of fever by visiting the forests, and are so constantly changing, a Collectorate perhaps being in four or five different hands during one year, that much confusion must be the result if the whole is not under some general control and management. The Inspector has been ordered to go tours round the ranges as heretofore to inspect the work and explain contemplated operations, etc., to the Collectors; but many of the Collectors do not report to him how matters are going on in their districts, or inform him of any changes, etc., carried out; in fact, he is left quite in the dark as to what is going on in many of the districts, and he may remain so from the time of one annual visit till the next.

41. It is a great advantage in many ways that open forest tracts like those in Salem, Cuddapah, etc., in which there are communal rights, etc., should be under the Revenue authorities, and most of these can be well supervised by Collectors. It is different, however, with our forests proper, such as the Anamallays, Mudumallay, Wynaad, and most hill forests, and with our plantations; Collectors can scarcely attend to these or seldom or even visit them, and they should receive much of the attention of the Inspector, or serious mistakes will be occurring.

42. In G. O., No. 322, dated 15th March last, Government have ruled that the Overseer grade is to be entirely under Collectors in each district, and that these subordinates are to be obtained in the districts in which they are employed and to be eligible for employment in other departments. This, the Inspector thinks, is a retrograde movement; a man may be a forester one day and an Accountant or something else the next, and he will not probably remain longer in forest employ than he can possibly help; in fact, anything like a trained department will soon cease to exist, and a Collector may put in any one he likes, however ignorant to the most important post. Much depends upon the efficiency and departmental knowledge of the Head Overseer or Forester in a range, and it will be impossible for our officers to carry on anything like systematic forestry, or to be responsible for the state of their plantations or reserves with a class of subordinates that might shortly be attempting to carry on forest work under this order. Hitherto, Overseers have been generally selected by the Conservator or one or other of his senior officers with due regard to their proclivities, constitution, knowledge of languages, surveying, etc., etc., and they have then been trained for some months in different ranges or plantations, where they were most likely to learn what was most required of them. Many men have entered and undergone this training without any pay when they knew it was to lead to an appointment. The senior Overseers in some of our districts require to have a very thorough knowledge of forestry and planting, and when such appointments fall vacant the best qualified men in other districts should be promoted to them. Again, many of our forests are so unhealthy that no man can stand a long continued residence in them, and changes and transfers are necessary between different districts; it is not clear how this can be managed except by the Inspector.

I have the honour to be,
Sir,
Your most obedient servant.

(Signed) R. H. BEDDOME, Major,
Inspector of Forests.

No. 2,148.

OFFICE OF CONSERVATOR OF FORESTS,
CHETTERPORE, *11th September* 1873.

From

C. G. MASTER, ESQ.,
Collector and Conservator of Forests, Ganjam,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—With reference to the Board's Proceedings, Forest No. 21, dated 8th May 1873, I have the honour to submit my report on the Gumsur and Surada forests in this district for the past official year 1872-73, accompanied by the Forest Overseer's report and its enclosures.

2. *Statement A (in printed Form).*—The actual receipts from all sources during the year amounted to Rupees 3,439-7-0, and the value of timber supplied to the Public Works Department was Rupees 238-4-0 ; thus making a total of Rupees 3,677-11-0 against Rupees 4,310 of 1871-72, inclusive of Rupees 426, being the value of timber supplied to Department Public Works, and against Rupees 4,500 of the Budget-estimate, exclusive of the value of timber supplied to Department Public Works. The cause of this decrease is chiefly attributable to the Zemindars of Coradah and Ranabah having diverted the trade to their own forests by under-selling Government. Only a small quantity of timber was used by the Public Works Department in consequence of the Berhampore Range Officer not having drawn his supply from Government stores, on which subject the District Engineer will be addressed.

3. *Statements B and C (in printed Forms).*—The expenditure under "A, Conservancy and Working" and "B, Establishment and Contingencies" amounted, respectively, to Rs. 548-9-0 and Rupees 2,651-15-6, making a total of Rupees 3,200-6-6 against Rupees 3,138 of 1871-72 and against the Budget provision of Rupees 3,250.

4. *Statement D (in printed Form).*—At the beginning of October 1872, when the Forest Department was taken charge of by the Revenue Department, there was a cash balance of Rupees 413-10-3 in the Overseer's hands out of the advance made for conservancy and working charges, and an outstanding advance of Rupees 5. These amounts have been recovered and credited in the Treasury Accounts. A permanent advance fund of 100 Rupees has been made to the Overseer to enable him to meet the conservancy and working charges, and the advance of 30 Rupees formerly made to him for petty contingent expenses has been recovered and credited in the Treasury Account.

5. Bills for sums expended on conservancy and working charges are submitted at the close of the month ; and as there was no balance unaccounted for on the close of the year under report, the memorandum called for in paragraph 11 of the Board's Proceedings, dated the 12th February 1873, has not been sent as reported in my three letters marginally noted.

No. 1,225, dated 14th June 1873.
„ 1,608, „ 24th July „
„ 1,802, „ 11th Aug. „

6. *Statement E (in printed Form).*—The statement given below shows the balance in quantity and value of timber on hand on the 1st April 1872, quantity and value felled, sold, and

supplied to Department Public Works during the year, and the balance on hand on the 31st March 1873:—

	Forest.		Depôts.		Total.	
	Cubic Feet.	Value.	Cubic Feet.	Value.	Cubic Feet.	Value.
		Rs.		Rs.		Rs.
Balance on the 31st March 1872	1,680	236	2,378	595	4,058	831
Felled or received into store during the year ...	1,953	236	2,255	694	4,208	930
Total...	3,633	472	4,633	1,289	8,266	1,761
Deduct—						
Sent to depôt or sold to public and supplied to Public Works Department	2,255	285	2,185	666	4,440	951
Balance on the 31st March 1873	1,378	187	2,448	623	3,826	810

7. The statements called for in paragraph 25 of the G. O., dated 16th April 1872, No. 609, prepared according to the instructions contained in paragraphs 24 to 26, are herewith sent. A memorandum, showing the cost of felling as distinguished from that of conveyance of timber to depôt, will be sent immediately on its receipt from the Overseer, who has been addressed on the subject.

8. The subjects alluded to in paragraphs 3 to 7 and 17 to 19 of the Overseer's report will receive attention. To re-place the buffaloes which have died during the year, as reported in paragraphs 8 and 9 of the Overseer's letter, I have made provision in the Forest Budget for 1874-75, sent with my letter of the 29th August 1873, No. 1,488.

9. I have had no opportunity of visiting the plantation referred to in paragraph 11 of the Overseer's report.

10. In conclusion, I have to express my regret at my inability to report upon the forest administration of 1872-73 as completely as I could wish. I have had neither opportunity nor time to visit the different forests, or to familiarize myself with the mode of their working.

I have the honor to be,
Sir.
Your most obedient Servant,

(Signed) C. G. MASTER,
Collector of Ganjam.

[Enclosure 1.]

Forest Office,
Russelcondah, 19*th August* 1873.

From

Mr. T. G. FREEMAN MacCALLY,
Overseer of Forests, Gumsur,

To

C. G. MASTER, Esq.,
Collector and Conservator of Forests.

Sir,—I have the honour to forward my Annual Report and Accounts for the official year 1872-73.

2. During the year the greater portion of the forests of my Range have been occasionally visited, except the most remote portions bordering on the Newaguddah and Duspullah frontiers.

which I was prevented from ill-health. Every attention had been paid to their conservancy as far as practicable, compatible with the means at my disposal.

3. All illicit felling and usurping of forest lands for cultivation, wherever detected, had been reported and the parties dealt with magisterially.

4. While on my tours through the Ootergodotole Mootah of my Range between Jagannauth-prasaud and Kookloobah and Balasye, I observed many old clearances in the forests between every village which had settled in them, besides the clearances of forests around the villages, with their wet and dry cultivation. These gaps of clearances in the forests are situated at a distance of 1½ or 2 miles from each other between the respective villages in these forests.

5. On examining these grounds, I found them to be old bunjer lands which are called in the southern ranges "koomery." Many valuable Sal and other reserved and unreserved kinds of wood had been destroyed by this kind of cultivation. The dried trees, many of them still standing on the grounds, are unmistakable evidences of their girt being from 3 to 4 and 5 feet, exclusive of the charred remains of a great number under decay. From personal observation, I should say that one-half of these valuable forests have underwent this sort of cultivation, and the other remains under conservancy. As these clearances or destruction of forests appeared to be the work of times passed, the inhabitants of every village I passed through were warned of the consequence of such felling, and advised to utilize the old grounds as much as possible, and that no new grounds could be granted them without sanction; and if they were found guilty of felling forests under bunjer clearances or any other place, that they would be punished.

6. A few new clearances were discovered by me in the Pouchogodo and Onagherry Mootahs between Gullery, Doorgaprasaud, Doorpinghia, and Mahagooda, which had been felled by parties belonging to villages situated in these forests. They have been prosecuted for mischief and punished.

7. All the applications for forest sites of land required for cultivation on "Cowle," referred to this department by the Tahsildar of Gumsur, were duly examined by me and reported upon on my returning the Durkhasts, conveying assent or dissent, agreeably to the quality of the wood discovered on them.

8. During the year cattle-disease has been prevalent through the taluq; many cattle died, and four of the buffaloes of this department fell victims to it. One died on the 15th May 1872, one on the 23rd, one on the 24th, and one on the 27th November 1872, leaving only three, which, although affected by it, had recovered.

9. The eight buffaloes originally attached to this department have been by casualties lowered to three, which has completely crippled it. To re-place the cattle attempts have been made but no healthy animals were procurable.

10. Cattle-disease is still prevalent, and, I think, it will never be eradicated if the owners of the cattle do not bury the deceased animals. At present the carcasses vitiate the atmosphere, and the localities in which they have died or been dragged to the pasturage of cattle is thus affected by the effluvia of the disease. Many places I have passed through, I have observed bones of cattle lying out of the villages and topes where the cattle had died; but the greatest quantities were to be seen at Goelpoor, Kanacooty, and Sunkoor villages, south of Manintara, where the topes and ground side of the villages were covered with them, indicating the sites where the cattle had died or had been dragged to, and also that the disease had prevailed there to a fearful extent. It would appear that the hides and horns of the animals are removed immediately after death and sold, and the remains of the carcasses left unburied. Although the orders published in the District Gazette of 2nd July 1870, page 332, prohibit the practice, they appear to be very little attended to, and will require some compulsory measures to enforce them in this taluq, as the Natives appear to be very indifferent on the subject, notwithstanding their great annual losses of cattle.

11. My small plantation contains the following trees :—

	No.
Teak	159
Jonesia Ashoka...	32
Sumach	8
Acacia Arabica	4
Inga dulcis	5
Sapindus emarginatus	5
Mango	20
Jack	15
Poinciana Regia	1

A number of trees which had died during the year will be re-placed from seed saplings as soon as they have germinated. One thousand teak seeds were sown.

12. 2,713 cart-loads of unreserved kinds of wood = 54,260 cubic feet were permitted to be felled and removed from the forests, free of taxation, for the re-building of 322 ryots' houses burnt during the year ; the seigniorage of this wood, if it had been realized, would amount to Rupees 1,356½.

13. 107 cart-loads of reserved and unreserved wood = 1,952·677 cubic feet were felled and removed from the forests by this department during the year ; a greater quantity of wood was found unnecessary, there being little demand.

14. 69 logs and one cart-load poles of reserved and unreserved wood = 1,218·667 cubic feet were sold by this department to private individuals for Rupees 427-6-0.

15. The Department Public Works, No. 3 Range, Russelcondah, was supplied with 54 logs of wood = 966·851 cubic feet, at a cost of Rupees 238-4-0. No demands were received from the Berhampore Range or the Engineer Officer at Vizagapatam, consequently the wood in depôt has only been maintained consistent with the demand.

16. 2,253½ cart-loads of reserved and unreserved kinds of wood = 45,070 cubic feet have been felled and removed from the forests on the voucher and license system, the seigniorage of which amounts to Rupees 2,908-4-0, and 541 cart-loads of firewood=236 tons at Rs. 84-8-6, making a total of collections of Rs. 2,992-12-6.

17. All the rafts of wood that had been grounded in various localities in the bed of the Mahanuddi river of Gumsur from the want of water at the close of the monsoons in 1871 have all been floated down during the few freshes in this river after the inundations of 1872 ; the owners of these rafts were not disposed to take out any more licenses for this season, having suffered severe losses from disappointment during the past. The Zemindars of Ranabah and Coradah, carrying on an extensive traffic in wood in their forests, which are dovetailed and surrounded by the Government forests, their seigniorage being below that of the Government forests, has drawn away many of our license-dealers to their forests, causing a great falling off in our seigniorage collections ; the anticipated revenue could not be realized. Originally, the Ranabah Zemindar speculated in wood, but now the Coradah Rajah, with two Agents, have begun this speculation. Two Zemindars under-rating their seigniorage below that of the Government forests would naturally result in drawing to them all our license-dealers, causing thus a failure of revenue in the Government forests. The egress and ingress to the Zemindari being through the Government forests causes great annoyance, but the right of way cannot be stopped. More supervision is necessary in the Government forests bordering on these Zemindaris, so as to prevent the Zemindari license-holders taking the advantage of surreptitiously felling in the Government forests bordering on the Zemindaris, and to prevent damages to the Government forests by the carts to and from the Zemindaris through them.

18. Thirty-nine persons were prosecuted for mischief, illegally felling, burning, and destroying of Government forests and usurping the grounds for cultivation, and they were sentenced by the Sub-Magistrate of Gumsur as follows:—

1	Person	fined	Rupees	60.
3	Persons	do. at	do.	10 each.
21	Do.	do. at	do.	5 do.
14	Do.	do. at	do.	3 do.

19. A few of the above individuals gladly paid up their fines having escaped the jail by their doing so. Others, who returned to their homes, have since re-cultivated the grounds for which they had been originally fined, in the consideration that by the payment of the fines they had thus redeemed the ground. These individuals will be again prosecuted, and if a few cases of the kind are dealt with severity, it will soon be put a stop to.

20. The health of myself and establishment has been very indifferent. One and all have suffered from fever occasionally, and I have been most seriously prostrated twice during August 1872 and February 1873, and have enjoyed very delicate health since.

1 Set, 5 Statements (A, B, C, D, and E.)
1 Set, 5 do (A, B, C, D, and E.) in duplicate, with eight vouchers attached.

21. I beg to append ten Statements of accounts in two sets, marked A, B, C, D, E, with eight vouchers attached as per margin.

22. The revenue, I regret to say, has not amounted to what was originally anticipated from reasons above stated, and the demands from the Department of Public Works being very small.

23. The total amount of receipts has been Rs. 3,439-7-0, and the value of timber supplied the Department of Public Works Rs. 238-4-0, makes a total revenue of Rupees 3,677-11-0 ; deducting from this sum the expenditure of Rupees 3,200-6-6 leaves a balance of Rs. 477-4-6 in favour of Government, and the value of timber in hand Rs. 810-8-0 makes a total of financial results of Rs. 1,287-12-6. Statement attached.

FINANCIAL RESULTS.

Receipts.

	Rs.	A.	P.			
Sale of timber at depôts	427	6	0			
Sale of timber removed by purchasers	2,992	12	6			
Sale of confiscated timber	19	4	6			
				3,439	7	0
Value of timber supplied Department Public Works, No. 3 Range				238	4	0
Total, Receipts...				3,677	11	0

Expenditure.

	Rs.	A.	P.			
Conservancy and Working...	548	7	0			
Establishment	2,544	0	0			
Office Contingencies	43	15	6			
				3,136	6	6
Balance in favour of Government...				541	4	6
Value of timber on hand on the 31st March 1873				810	8	0
Total, Financial Results...				1,351	12	6

(Signed) T. G. F. MacCALLY,
Overseer of Forest, Gumsur.

961.

VIZAGAPATAM, 1*st July* 1873.

From

J. R. DANIEL, ESQ.,
Acting Collector of Vizagapatam,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—Referring to the Proceedings of the Board of Revenue, No. 746, dated 8th May last, I have the honour to submit herewith copy of a report on the administration of the Forest Department for 1872-73, furnished by the Principal Assistant under whose management the Golgondah forests are placed.

2. The receipts during the year amounted only to Rupees 40-3-0 against Rupees 255-9-0 of 1871-72, and the expenditure to Rupees 775-12-0 against Rupees 756-12-2 of 1871-72.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. R. DANIEL,
Acting Collector.

[ENCLOSURE 1.]

PRINCIPAL ASSISTANT COLLECTOR'S OFFICE,
NARSIPATAM, 3*rd June* 1873.

No. 165.

From

A. CRUICKSHANK, ESQ.,
Principal Assistant Collector of Vizagapatam

To

J. R. DANIEL, ESQ.,
Acting Collector of Vizagapatam.

SIR,—With reference to the note appended to the Proceedings of the Board of Revenue, dated the 8th May 1873, No. 746, Forest No. 21, I have the honour to inform you that the amount realized during the year 1872-73 for timber and bamboos sold in the Golgondah forests was only 40 Rupees 3 Annas. The amount realized in the preceding year was 255 Rupees 9 Annas. It is difficult to account for so great a decrease. The reasons assigned by the Sub-Overseer are want of cattle and want of money on the part of the ryots.

3. The only form of those prescribed in the G. O., dated the 16th April 1872, No. 609, which is applicable to the Golgondah forests, is Form E, which is herewith enclosed.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) A. CRUICKSHANK,
Principal Assistant Collector.

No. 117.

CUDDAPAH COLLECTOR'S OFFICE,
CIRCUIT AT WANIPERUTA, 18*th July* 1873.

From

W. D. HORSLEY, ESQ.,
Collector of Cuddapah,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to forward my report* of the administration of the forests in this district for 1872-73.

* *Vide* Board's Proceedings, dated 8th May 1873, No. 746, Forest No. 31.

2. The season has been, on the whole, favourable for planting operations, but it has not been quite so beneficial as might have been expected from the extra rain-fall. The rain fell heavily, but there were long intervals between the showers. The young plants in the nurseries and plantations did not thrive under this drenching process, while the older trees in the fuel reserves were benefited by the rain. The Deputy-Conservator complains that the greater part of the planting season was lost owing to want of funds; I am not aware how this occurred.

3. The plantations and fuel reserves are all in the Pullampett Taluq, except the plantation at Camalapoor. The Pullampett Taluq is naturally the best adapted for forest operations of this description, and, indeed, I do not know that it would be possible to carry on the work in any other locality near the railway in this district.

4. There are at present only three patches of forest which have been fenced in as Railway fuel reserves. Their extent is not accurately known, as they have not been measured, but they are estimated at acres 4,133. It is absolutely necessary that more forest should be enclosed, and this can be done without interfering with communal rights. If something is not done in this way, the supply of fuel will not keep pace with the demand from the railway especially. The work is inexpensive, requiring only a small outlay to plant an Aloe-fence, while the improvement within the portion enclosed is very rapid; this is readily observed when the condition of the trees and underwood in the reserves is compared with the open forest beyond the fences. During the year, I have endeavoured to add to the reserves two tracts estimated to contain acres 6,672, but as yet these portions of forest are not enclosed. In one case, the land is claimed by a shrotriemdar; and in the other, roads through the forest to the hills render it difficult to enclose. The cost of watching and fencing the reserves has amounted to Rupees 606, but this sum includes Rupees 102, the travelling allowance of the officers when employed visiting these works. I am satisfied that only by enclosing forests can we ever hope to keep up the supply of fuel. What we are doing now in this way will not enable us to meet the demands which will be made when the open forest has been sufficiently cleared by the railway fuel contractors, who are rapidly denuding the country of trees.

5. There are altogether five plantations now at work, occupying acres 1,731. Waste land of good soil is now very scarce. The only land available for these plantations is wretchedly poor, and only the most hardy plants can exist at all in such soil. The system of sowing seeds in pits and channels and allowing the plants to shift for themselves is a mistake. If there was any scrub jungle on the ground, they might thrive, but exposed to the sun in a coarse, stony soil, and dependent entirely on rain, it is unreasonable to expect that even a small percentage of the seeds which germinate should become plants of any strength. In each plantation there is a nursery, where the young plants are watered and tended until they have acquired sufficient strength to be

planted out, when they can manage for themselves. Such plants generally do well. But both this and the channel and pit work are slow and expensive. Thus it will continue to be until the ground is sufficiently covered with trees to aid the growth of seedlings. During the past year the working charges and establishment on these plantations of acres 1,700 and odd cost Rupees 8,854-11-2.* These expenses cannot be reduced, and the work is carried on as economically as it possibly can be. But the system is, I am sure, a bad one. These waste lands when first taken up should have been well ploughed and sown broadcast with Babul and other seeds producing hardy, indigenous trees, without particular reference to the value of their wood. Beyond a small outlay in fencing in the ground, no heavy expenses would be incurred for some time. The trees would require to be thinned occasionally, and the sale of the wood would make some return for the outlay, while the standing trees would help the growth of young plants. Unprofitable though the undertaking now is, it will not do to interfere with existing plantations. They must be kept up, but ground now unoccupied with plants must be ploughed and sown broadcast. The Red Sanders plantation at Codoor is doing well, but rearing valuable trees and paying dearly for experiments is not what I understand the Government to require. Red Sanders and Sandalwood fetch a good price in the market; but they are too valuable for fuel, and it is fuel which is wanted at present. When we have a good supply of that it will be time to turn our attention to producing wood of value for other purposes. I have carefully inspected four out of the five plantations, and there is very little to show for the labour and money which has been expended on them. The contrast between their condition and that of the flourishing reserves which have cost annually so much less, though they cover a much greater extent of country, is very marked indeed. As the reserves are thinned, they can always be rapidly replenished. Plants will naturally thrive in a rich leaf-mould and in a moist, cool air created by so much vegetation around them.

	Rs.	A.	P.
* Ooperapally Railway Fuel Plantation ...	757	9	0
Codoor Red Sander Plantation	444	9	2
Reddipally Railway Fuel Plantation... ...	2,529	5	6
Pullampett do. do.	4,215	5	0
Camalapoor do. do.	907	14	6
Total...	8,854	11	2

6. The collection of seigniorage on account of engine-wood, at the rate of Rs. 1 per 1,000 lbs., has amounted to nearly Rupees 40,000.† This will give an idea of the rapidity with which the railway is burning up the forests. At this rate, in a very few years fuel will become exceedingly scarce, and no time should now be lost in enclosing for reserves.

† *Vide* Statement E, Rupees 36,940-6-6.

7. It is surprising to me that the forest officers should complain so much of the petty free felling, as it is termed of the villagers, while so little has been said regarding the consumption by the railway. The fact is by the former practice a little money is lost to Government, while the latter yields a large revenue. During the past year the value of wood cut on free Passes is Rupees 1,792-8-0.‡ No doubt, as the Deputy-Conservator says, this does not represent the entire value of the wood removed from the forests; but supposing that wood has thus been taken to four times this amount, the effect on the forests will be very trifling. It is only necessary to see that wood is not taken for sale without payment of seigniorage, and it seems to me to matter little whether wood legitimately taken free is covered by a Pass or not. The quantity and quality of the wood taken by each person will show the tanna officials to what purposes it is to be applied.

‡ *Vide* Statement F.

8. The fires in the jungle are most destructive. They are caused by the cowherds sometimes accidentally, but more frequently wilfully. The burning of the old grass causes the young grass to shoot up more rapidly, and good pasturage is obtained for the cattle. It is very difficult to say how this is to be stopped. It will not be of the slightest use to make the act punishable criminally, as convictions will be so rare. It will be almost impossible to say who among the many cattle-watchers in the hills at one time originated the fire. I can only suggest that a fine should be levied by Revenue-officials on owners whose cattle it is known are grazing on the hills on which the fires appear. It is well known in a village whose cattle are on the hills, but it would be

impossible to say who caused the fire. It is absurd to talk of the damage caused by cattle to young saplings when these fires are allowed to destroy everything in the shape of vegetation on the hills.

9. The sale of Red Sanders roots, stumps, and posts, has proved very remunerative. The cost of collection and carting to the depôt at Codoor was, including seigniorage, Rupees 5,931. The sales realized Rupees 21,824*. This source of revenue will not, of course, last for ever, and to protect growing Red Sanders portions of the forest should be enclosed. There can be no objections to the collection of roots and stumps of trees already destroyed being continued till the forests are drained.

* *Vide* Statement A.

10. The total receipts on account of forests amount to Rupees 73,260,† while the expenditure, including conservancy and establishments, was Rupees 26,745,‡ leaving a net profit of Rupees 46,515, besides stock in hand valued at Rupees 4,265. I would rather that the profits were less and the reserves larger.

† *Vide* Statement A.

‡ *Vide* Statement A.

11. The Pullampett Taluq contains 54 Shrotriem and Jaghire villages. Now that the railway has created such a demand for fuel, and it is known that the forests can yield such a large revenue, some of the Shrotriemdars and Jaghiredars are claiming, for the first time, large tracts of jungle in the vicinity of their villages, and the settlement officers are engaged in disposing of their claims. These disputes are not easy of settlement. The old Pymaish accounts only show the cultivable extent of land in each village, and the Inam Commissioner's title-deeds complicate matters by the addition of the words "besides poramboke" to the extent of land in the village. The owners of the villages maintain that the additional words give them a claim to the jungles. If this is admitted, it will depend solely on the forbearance of these Inamdars how much of forest land will be left for Government, because there are no boundaries in the jungles to enable the Government to say that the right of the Inamdars does not extend beyond a certain point. I have no doubt myself that the jungles were not included in the original grants. The term poramboke is never applied to forest land, but to cultivable unassessed waste. When these villages were given free of assessment, and for a great many years afterwards forest lands were considered to be of no value whatever, and a gift of such lands to a Brahmin, or, indeed, to any one, would probably have been rejected. The Shrotriemdars are really entitled to only that portion of land which was cultivated, or rendered capable of being cultivated by being cleared of jungle at the time when the grant was made. As it might be difficult to determine how much land was in that condition at that time, the claim might be admitted so as to include all land now cleared between the jungle and the land which is generally recognized as Shrotriem land. This would ordinarily place the boundary at the base of hills. It is quite impossible to suppose that the hills were included in the grant. In former days, only agricultural produce was prized. Forest culture was not known or thought of, and the hills are fit for nothing else. I am searching for information in the records on this subject, but I doubt whether there is anything to be found which will throw more light upon it. If the exorbitant claim of the Shrotriemdars is admitted, the loss not only to Government in the shape of revenue but to the country will be enormous. The jungles will not be judiciously cleared, but they will be ruthlessly stripped of every stick they contain with a view only to present profits.

Shrotriem Villages	51
Jaghires	3
Total..	54

12. Great credit is due to all connected with the Forest Department in past years for the very efficient manner in which the work has been performed with the small establishment at their disposal. The establishment in the past year has cost only Rupees 8,651-14-10§. I cannot give the extent of forest which has been brought under the operations of the department, but I know it is very large, and portions of the country are very unhealthy. A larger establishment is

§ Inclusive of salaries, allowances, and contingencies, *vide* Statement A.

required to complete the work of conservancy, which, I consider, has been only commenced, and on this subject I am about to submit a separate report.

Dated 14th July 1873, No. 76, with prescribed Statements prepared with reference to Board's instructions in paragraphs 3 and 4 of their Proceedings, dated 8th May 1873, Forest No. 21.

13. Enclosed is the report* of the Deputy-Conservator Mr. Yarde. The amount of energy, activity, and intelligence which this officer brings to bear upon his work is well known, and he does not appear to me to be at all disposed to be grasping with the people ; and he readily admits all reasonable rights and privileges which may be urged by them.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) W. D. HORSLEY,
Collector.

[ENCLOSURE 1.]

No. 76.

DEPUTY-CONSERVATOR'S OFFICE,
CAMP CODOOR, 14*th July* 1873.

From

H. H. YARDE, ESQ.,
Deputy-Conservator of Forests, Cuddapah District,

To

W. D. HORSLEY, ESQ.,
Collector and Conservator of Forests, Cuddapah.

SIR,—I have the honour to submit you my revised Annual Administration Report of my Range for the official year 1872-73, with the necessary accompaniments.

SECTION I.

Introductory Remarks, mentioning the Name of the Officer in Charge.—Throughout this year I have continued to remain in charge of this District Forest Range, together with the railway fuel plantations, assisted by my only Overseer Mr. H. Stafford, though, from 17th August to 23rd January 1873, Acting Overseer T. A. Maduranayagum Pillay was in charge of the Camalapoor plantation, previous to which it was an addition to Mr. Stafford's charge.

Mr. G. Hadfield, a Probationary Assistant Conservator under tuition, left this district on the 19th April 1872 for the Trichinopoly District, *via* North Arcot, to visit the plantations there, after learning the duties of a range officer. During the period I have travelled through most portion of my charge in the various taluqs, and very many times visiting all the railway fuel reserves, railway fuel plantations, and important forest tracts.

Much of my time was taken up owing to the several boundary disputes by Shrotriemdars of the district and the Venkatagherry Zemindari of the Nellore District, which promises to be very detrimental to our forest operations, as will be shown in more detail hereafter.

SECTION II.

A.—RESERVED FOREST, OPERATIONS, AND CONTEMPLATED OPERATIONS.—None.

B.—FUEL RESERVES, OPERATIONS, AND CONTEMPLATED OPERATIONS.

Baulpalli Railway Fuel Reserve, No. I.—Throughout the year on this reserve two watchmen were employed to prevent felling and trespasses of any kind. The density and improvement in the reserve is very perceptible. A nursery has been kept up, and filling up in open space and gaps has been carried out. The cost of the watchmen, at Rupees 6 each per mensem, was Rupees 144.

Baulpalli Railway Fuel Reserve No. 11.—No funds being available, this piece has not been fenced in, and consequently the employment of watchmen was unnecessary ; hence, no cost this year against this reserve.

Sullakuntachanoo Railway Fuel Reserve.—A gardener and two watchmen were engaged to protect this portion and conduct other planting work where it was necessary, and the cost thereof has been Rupees 216, *i.e.*, the three men at Rupees 6 each. Here also very much good has been done, as the trees being unmolested have sprung up and the under-growth increased very considerably.

Yerraguntacottah Railway Fuel Reserve.—No cost ; not yet fenced in.

Codoor Hill Railway Fuel Reserve.—This is to be an addition to the present railway fuel reserve at Sullakuntachanoo. No funds being available, and the settlement of the boundary disputes between the Government forests and that of Vellalavarikundrikai Shrotriemdars not yet being concluded, the fencing in this portion has been postponed. As yet no cost against this reserve.

Strinivassapuram Kothapully Agraharam Jungles.—This Shrotriemdar's jungles adjoining our forests necessitated the employment of two watchmen by us to prevent his people from felling in our limit, and the cost thereof during the year has been Rupees 144. The Baulpalli reserve costing Rupees 144, the Sullakuntachanoo Rupees 216, and Strinivassapuram Kothapully Agraharam Rupees 144, makes a total Rupees 504 ; to which must be added Rupees 102 expended for my travelling by rail during the year and chargeable to these reserves, making a total expenditure of Rupees 606 as per Statement A, Conservancy and Working, heading VII.

C.—Plantations, Operations, and contemplated Operations.

Ooperapully Railway Fuel Plantation.—In all 15,061 plants were put out from the nursery, of which 11,474 were casualties re-placed in the following kinds:—1,787 Melia Azadirachta, 70 Muthy, 1,422 Cassia florida, and 8,195 Albizzia Lebbek. Of the 3,587 freshly planted out, 237 were Melia Azadirachta, 300 Cassia florida, 410 Casuarina equestifolia, 60 Muthy, and 2,580 Albizzia Lebbek. The casualties that occurred during the year were 2,765, viz., 555 Melia Azadirachta, 130 Cassia florida, 50 Muthy, 100 Acacia Arabica, 30 Udagay, and 1,900 Albizzia Lebbek. Sixty-one nursery-beds were added in the following species:—36 Albizzia Lebbek, 9 Muthy, and 16 Yagee. 800 pits were excavated, 18 yards fencing repaired, 108 chains channelling cleared and weeded, 3,636 plants weeded around, 4,306½ chains channelling sown with different kinds of seeds as follows:—203 Acacia amara, 2,015 Albizzia Lebbek, 1,244 Acacia Arabica, 329½ Melia Azadirachta, 197 Eugenia Jambolana, and 338 Udugay. Ninety-two measures seeds collected, viz., 32 Acacia amara and 60 Albizzia Lebbek.

	Rs.	A.	P.
Plantation working charges, including pitting and channelling...	588	9	0
Fencing	.....		
Hired establishment	169	0	0
Total...	757	9	0

Codoor Red Sander Plantation.—The usual works were carried out on this plantation, *i.e.*, putting down young plants between the established ones in pits and channels, sowing of Red Sander seeds and other kinds in nursery-beds and watering them, weeding and clearing the plantation of all brushwood interfering with the growth of the young plants, and the general up-keep of the nursery.

	Rs.	A.	P.
Plantation working charges, including pitting and channelling ..	276	9	2
Fencing	.....		
Hired establishment	168	0	0
Total...	444	9	2

Reddipully Railway Fuel Plantation.—On this plantation 7,995 plants were put out of the nursery, of which 2,938 were casualties re-placed in the following species:—2,675 Albizzia

Lebbek, 77 Cassia florida, 172 Melia Azadirachta, and 14 Inga Saman. The remainder 5,057 freshly planted out were the Albizzia Lebbek. The casualties during the year were 4,757 amongst the under-mentioned kinds :—3,232 Albizzia Lebbek, 827 Acacia Arabica, 52 Cassia florida, 172 Melia Azadirachta, 55 Acacia amara, 14 Inga Saman, 300 Casuarina equestifolia, and 105 Udugay. Four Red Sander and one Jack nursery-beds were prepared and added. 1,789 chains channelling sown with the seeds of the Albizzia Lebbek, Melia Azadirachta, Acacia amara, Tamarindus Indica, Acacia Arabica, Eugenia Jambolana, and Cassia florida. Two chains of Aloe-fencing repaired that was washed away during some of the heavy rains; 3¼ acres ploughed and sown broadcast with Acacia Arabica seeds, 1,810 pits excavated, 7,900 plants weeded around, and 345 measures Albizzia Lebbek seeds collected.

	RS.	A.	P.
Plantation working charges, including pitting and channelling...	1,193	3	6
Fencing	1,167	2	0
Hired Establishment	169	0	0
Total...	2,529	5	6

Pullampett Railway Fuel Plantation.—15,410 plants were put out from the nursery, 550 of which were the casualties re-placed—in Albizzia Lebbek 395, Melia Azadirachta 125, and Cassia florida 30 ; and the remainder 14,860 of the following kinds freshly transplanted out :—5,873 Melia Azadirachta, 1,643 Cassia florida, 7,923 Albizzia Lebbek, 110 Casuarina equestifolia, 198 Muthy, 72 Inga Saman, 21 Ficus Indica, 10 Mangifera Indica, 10 Bassia latifolia. The casualties that occurred were 1,732 in all, viz., 67 Casuarina equestifolia, 490 Melia Azadirachta, 255 Albizzia Lebbek, 220 Cassia florida, 530 Acacia Arabica, 25 Muthy, 25 Inga Saman, and 120 Udugay. 710 pits excavated, 308 chains channelling weeded and cleared, 8½ acres ploughed up and sown broadcast with Acacia Arabica seeds, 56 nursery-beds prepared and added, viz., 24 Albizzia Lebbek, 31 Melia Azadirachta, and 1 Cassia florida. 280 measures Albizzia Lebbek seeds collected. 810 chains channelling sown with the following kinds of seeds :—197½ chains Acacia amara, 203½ Acacia Arabica, 191½ Melia Azadirachta, 189 Albizzia Lebbek, 7½ Cassia florida, and 21 Eugenia Jambolana.

	RS.	A.	P.
Plantation working charges, including pitting and channelling...	3,843	5	0
Fencing	245	0	0
Hired Establishment	127	0	0
Total...	4,215	5	0

Camalapoor Railway Fuel Plantation.—On this plantation 30,109 plants in all were removed from the nursery and transplanted out, of which 1,439 were casualties re-placed, *i.e.*, 1,125 Melia Azadirachta and 314 Casuarina equestifolia ; and the remainder 28,670 freshly put in the following kinds :—27,155 Albizzia Lebbek, 1,485 Casuarina equestifolia, and 30 Cassia florida. The casuals were 3,369 as follows :—1,725 Melia Azadirachta, 464 Casuarina equestifolia, 780 Cassia florida, and 400 Albizzia Lebbek. 6,250 chains of channelling were sown with the seeds of the Acàcia Arabica, 25,640 plants weeded, 123 chains fencing repaired, 15,375 pits excavated, 5,200 pits sown with seeds, and 200 chains channelling weeded and cleared.

	RS.	A.	P.
Plantation working charges, including pitting and channelling...	571	14	6
Fencing	.....		
Sanctioned Establishment	336	0	0
Total...	907	14	6

In Statement A, Receipts, heading IX., Rupees 20 will be found, which was realized by giving the grass on the above plantation on contract.

Extensive nurseries on all and every one of these plantations have been kept up to be enabled to re-place casualties as they occur and transplanting during the season, permitting such

works to be carried out. In the first quarter, in the month of May only, there were some sudden heavy downpours in the Pullampett Taluq, which benefited them to a great extent, but also proved a little destructive to the Reddipully plantation in washing away some fencing, some established plants and seeds sown in channels, also silting up a good deal of the excavated channels.

In the second quarter of the year, viz., July, there were some few small showers of rain doing much good ; in August they were very general and frequent, which enabled a good deal of planting out work to be gone through. In September, in the Pullampett Taluq, there was hardly any good rain, while Camalapoor got to be fortunate for water.

During the three months of the third quarter much rain came down, but unfortunately from the want of funds we were unable to take advantage of them, and thus, we may say, a whole planting season entirely lost. We just had sufficient money to keep up the nurseries.

In the fourth quarter, only in the beginning of February, we had a couple of days' rain, which, however, helped the younger plants a great way, as they were assuming a very parched up appearance, especially owing to the hot months being passed through.

Albizzia Lebbek, Muthy, and Cassia florida, thrive best at Ooperapully ; Acacia amara has been experimentally tried season before last ; and Udugay last season.

The same may be said for the Reddipully and Pullampett plantations ; at Camalapoor Acacia Arabica, Albizzia Lebbek, and Acacia amara are being tried.

Against the head of Expenditure on all the plantations as per Statement A, Conservancy and Working, heading VI, the total is Rupees 8,518-11-2 ; but the expenditure of Rupees 336 against the last plantation (Camalapoor) for sanctioned establishment must be looked for from "Statement A, Establishment, heading I., Salaries, viz., one head gardener, at Rupees 10, and three under-gardeners, at Rupees 6 each per mensem."

SECTION III.

License and Voucher Forests.—This system remains unchanged, while some works are carried on departmentally, *i.e.*, collection of Red Sander roots and stumps and posts and other timbers for the depôt.

Timbers supplied to Public Departments.—21 cubic feet, 4½ inches, of Kullum wood was supplied in the month of January 1873, as per Statement E.-I., to the Commissary of Ordnance, Fort St. George, Madras, and vouchers sent to be signed and returned as a support for our returns, but that officer sent a transfer remittance receipt to the Conservator for Rupees 26-11-3, which was cashed and credited in the Treasury Accounts, *vide* Statement A, heading I., "Value of timber supplied to Public Works Department," which makes it a cash transaction ; but the order of Government prohibits a dealing of that sort with Public Departments. It should have been a mere transfer voucher, with the value of timber, signed by the receiving officer, to be a sufficient guarantee for entering the same in the accounts.

Timber, Firewood, Bamboos, etc., removed by Wood-cutters on Licenses.—*Vide* Statement A, Receipts, heading II., which exhibits solely the collection under these heads and system.

Engine Firewood.—To the extent of 16,491 tons and 566¼ lbs. was taken, realizing Rupees 36,940-6-6, exceeding last year's revenue by Rupees 14,059-4-3, and which is included in the amount in Statement A, Receipts, heading II.

Quantity of Timbers of all Descriptions felled and stored in Depôts.—*Vide* Statement B. 2,061,190 lbs. was collected into the depôts of Codoor during the year, at Rupees 4-9-8 per 1,600 lbs., and at a cost of Rupees 5,931-4-8 ; 210 1st-class Red Sander posts, at Annas 12 each, Rupees 157-8-0 ; and 1,773 2nd-class posts, at Annas 10, Rupees 1,108-2-0. The amounts, or valuation in the above form, includes the seigniorage attached, at Rupees 3, on every 1,000 lbs. of Red Sander roots and stumps, and Rupees 6 to every 20 posts or a cart-load, which rates were once in force under the license system, but the amounts given here are what they actually cost the department, including carting.

Timbers of all Descriptions sold to Merchants from Depôts by Tender or Auction and the Quantity to be accounted for.—In last year's account, there was a balance on 1st April 1872 of 2,571 cubic feet ¾ inch of Thumbah timber; 662,010 lbs. Red Sander roots and stumps; 100 Red Sander, 1st-class, and 200 2nd-class posts, *vide* Statement D; to which must be added the quantities mentioned in the foregoing paragraph as "collected during the year" as per Statement B, making Red Sander roots and stumps 2,723,200 lbs., 310 1st class and 1,973 2nd class Red Sander posts, and from this must be deducted the sales as follows:—Red Sander roots and stumps 2,240,000 lbs., or 1,000 tons; 1,532-3¼ cubic feet Thumbah timber; 304 1st class and 1,107 2nd-class Red Sander posts. The roots and stumps were sold to Messrs. Dymes and Co., at Rs. 8 per 1,000 lbs., for Rs. 17,920, and for this voucher is attached to Statement A in support of heading I. for September 1872, leaving a balance, on 1st April 1873, Red Sander posts, 1st class, 6 or 10 cubic feet; 2nd class posts 866 or 1,443⅓ cubic feet; 483,200 lbs. Red Sander roots and stumps; and 1,038 cubic feet 9$\frac{5}{12}$ inch Thumbah wood as per Statement D, "Particulars of balance," valued at Rs. 4,264-15-10.

Confiscations.—The amount realized by sales under this head has been Rupees 563-4-0, *vide* Statement A, Receipts, heading VII., "Sales of confiscated timbers."

Measures taken for extending and improving the Forests.—Attention as usual has been paid whenever excursion into the forests were made with regard to removal of all obstinate creepers about the valuable timber-trees. No cost against this head has been incurred, as the peons and others of the establishment carried out such work, even while on their own beat duty through the jungles.

Elephants and other Cattle and Carts employed in the Forests and their Work.—Only thirteen carts were employed for removal from the forests the confiscated timbers during this period, at a cost of Rs. 17, as per Statement A, Conservancy and Working, heading I., "Carriage of confiscated timbers."

Free Felling.—Statement F shows the quantities taken free by ryots in each taluq for their *bona fide* agricultural purposes. This is only an account for which documents, *i.e.*, "Free Passes," were issued; but greater quantities without a doubt have been taken, and the ryots have generally supplied their wants without obtaining the necessary authority. The Pullampett Taluq shows a very meagre distribution; for timber no entry whatever, more especially when it comes to be considered that the taluq is so scattered with so much and very valuable forests and villages adjacent to the whole of the forest range. The valuation of the materials in the statement is estimated at Rupees 1,792-8-0.

Any valuable, rare or new Plants.—None.

Forest Products.—The proposal for the collection of this kind not being sanctioned, nothing was done in this line.

Outstanding Advances.—Amounts to Rupees 73-15-0 remaining in the hands of myself and Overseer, advanced to him for the operations of the Ooperapully, Reddipully, and Pullampett Railway fuel plantations. I am answerable for Rupees 70-6-0, Rupees 30 being the permanent advance for office contingencies and Rupees 40-6-0 the balance on the Codoor and Camalapoor plantations. The Overseer has Rupees 3-9-0 belonging to the plantations; he is in charge of Ooperapully, Reddipully, and Pullampett.

Trespass or Damage committed in the Nurseries, Plantations, or Forests, and the Results of Criminal Prosecutions.—The results in cases have been about 70 and number of persons 73 per cent. conviction for persons who cut timbers, etc., clandestinely, (without the necessary authority, licenses) and such reserved timbers as are restricted in felling; but I don't mean to say that these cases comprise the whole of the offences committed. A very great many have gone undetected from want of sufficient establishment to watch the very numerous outlets from each forest.

The annual fires have in no way decreased, and the depredations committed by cowherds, who flock to these forest range from the Nellore District and the taluqs in this during the hot

season with very large flocks of cattle of all descriptions and remain penned up in the hills for months together, hewing down especially the most valuable Red Sander trees as fodder. Cattle trespasses on the plantations have been summarily disposed of by the Pound fine having been made to bear on each case, and considered a sufficient punishment since no damages to nurseries or plants resulted.

SECTION IV.

Yield of Forests.

Amount of Timbers, etc., etc., taken from the Forests during the Year.

Timbers.			Fire-Wood.			Bamboos.			Charcoal.			Barks of Wood.			Palmyrah.			Red Sander Roots and Stumps.			Red Sander 1st-class Posts.			Red Sander 2nd-class Posts.		
Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.
,,	104,300 cubic feet.	6,680 cubic feet.	,,	707 tons, 320 lbs.	56,120 maunds.	,,	1,168 bandies and 642 ass-loads.	111 bandies.	,,	570 parahs.	,,	,,	136 bandies.	,,	,,	37½ trees.	,,	2,061,190 lbs.	,,	,,	350 cubic feet.	,,	,,	2,955 cubic feet.	,,	,,

The firewood includes the quantity of fuel taken by the Railway Company as well as on licenses by other parties. The only difference in the system being that the Railway Company pay into the treasury Rupee 1 on every 1,000 lbs. supplied them by the contractor, whereas merchants pay the seigniorage beforehand into the treasury. The above Section shows the entire drainage on my forests for the year under review, independent of the quantity smuggled and clandestinely felled.

SECTION V.

Financial Results.

				RS.	A.	P.
Receipts.						
For the year 1872-73, *vide* Statement A....				73,260	15	1
Expenditure.	RS.	A.	P.			
Conservancy and Working, *vide* Statement A.	18,093	13	6			
Establishment I. and II., *vide* Statement A...	8,575	15	4			
Contingencies III, . do.	75	15	6			
				26,745	12	4
Net profit to Government...				46,515	2	9
Vide Balance of stock on hand on the 1st April 1873, Statement D.				4,265	0	10
Total ..				50,780	3	7

The amount of Rupees 1,792-8-0, the valuation of free felling during the year, is not included in the above amounts. My Budget-estimate for 1872-73 was as follows :—Receipts Rupees 50,000. And expenditure under Conservancy and Working Rupees 15,000, with a supplemental sanction of Rupees 5,000 and establishment Rupees 9,000, making in all Rs. 29,000; while the actual receipts have been Rupees 73,260-15-1 and expenditure Rupees 18,093-13-6 and Rupees 8,651 14 10, respectively making a total of Rs. 26,745-12-4; thus the surplus to Government credit Rupees 46,515-2-9, instead of Rupees 26,000 as was anticipated. The increase in receipts must be attributed chiefly to the extra quantity of engine firewood taken by the Railway Company and excess in expenditure to the extensive operations on the additional Railway fuel plantations and the Railway fuel reserves, which were not under contemplation when the Budget-estimate was being prepared and forwarded, and which necessitated a supplemental amount being sanctioned, viz., Rupees 5,000; Rupees 224, the salaries of a head gardener (Rupees 10) and three under-gardeners (at Rupees 6 each,) viz., Rupees 28 per mensem for eight months, was drawn from the Cuddapah District and paid to the establishment on the Ghooty plantation in the Bellary District, and added in the accounts of that district, *i.e.*, from April to October 1872; hence a less amount as abovementioned will appear in the General Statement, but explained by a foot-note.

Results of the previous year (1871-72) were as follow :—

Budget-estimate.				*Actuals.*			
	RS.	A.	P.		RS.	A.	P.
Receipts	50,000	0	0	Receipts	55,330	1	3
Conservancy and Working ...	RS. 18,000			Conservancy and Working ...	RS. A. P. 14,833 1 2		
Establishment ...	9,160			Establishment...	7,751 13 10		
	27,160	0	0		22,584	15	0
	22,840	0	0		32,745	2	3

SECTION VI.

General Remarks.—As mentioned in my last year's report that other Shrotriemdars like Strinivassapuram Kathapulli Agraharam will, in course of time, advance their claims to hill and other lowland forests, and eventually enter the market with the department to supply the Railway Company with fuel, one at Vellalavari Kundrikai has already done so, and another next to him called Mubarayapuram Agraharam has commenced to object to our wood-cutters entering the hill forests adjoining his village, which, from time immemorial, has been open to them.

Our new Railway fuel reserves have not yet been fenced. I should think that a separate sanction should be obtained for this work, since my Budget-estimate did not make arrangement for this extensive work.

During the heavy rains of the monsoon the depôt walls at Codoor and Baulpalli were damaged to some extent, and again repaired, when the weather permitted, from the working charges of the district. Much is the regret that from want of sufficient funds during the past planting season that that description of work could not be carried out; and hence a whole season has been irretrievably lost. The rains were opportune and plentiful, and I anticipated doing very much during the season in the planting line.

Health of Establishment and Conduct.—During the year a peon in the Budwail Taluq and a Railway fuel reserve watchman at Baulpalli died from the malarious fever peculiar to those portions of the district forests, and almost every Tannah peon situated in the jungles were obliged from sickness to take advantage of leave on substitutes. The season has been rather unhealthy, and fevers very prevalent. My Overseer was prostrated with the dengue, and I was obliged to give him a short rest. I also had several small attacks of fever at different periods.

The work of my Office has much increased of late, and with the limited establishment of one Writer and a Duffadar who assists, I have been with the greatest difficulty able to despatch my accounts and the periodical returns in proper time. Separately I forward a proposed revision, as called for in G. O., No. 1,674, dated 13th December 1872.

My Overseer, Mr. H. Stafford, was in charge of the Camalapoor and Ghooty plantations, besides his other plantations in the Pullampett Taluq, from 1st April 1872 to 17th August, when T. A. Maduranayagam Pillay took charge and remained till 23rd January 1873, on which date his services were dispensed with.

I am happy to be able to report that all and every one of my establishment have worked cheerfully and conducted their several duties to my entire satisfaction.

I cannot but remark here that the present enormous rate of consumption of fuel by the Madras Railway Company has removed our forests to a great distance from the line and up to the brow of the both ranges of hills in the Pullampett Taluq, which, I think, will necessitate our resting our forests for a while to enable them to recover the depredations committed since the last six or seven years.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) H. H. YARDE,
Deputy-Conservator of Forests,
Cuddapah District.

BELLARY COLLECTOR'S OFFICE,
5th July 1873.

No. 216.

From

J. H. MASTER, ESQ.,
Collector of Bellary,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—With reference to paragraph 1 of the Proceedings of the Board of Revenue, Forest No. 21, dated 8th May last, I have the honour to report on the administration of forests in this district for 1872-73.

2. The forests in this district were taken charge of by me from 1st October last, as per paragraph 1 of the Proceedings of the Board of Revenue, Forest No. 1, dated 17th September last, and Rupees 400 have been advanced to the Deputy-Conservator of Forests as permanent advance fund, as per paragraph 2 of the Proceedings, Forest No. 7, dated 12th February last, to enable him to incur the working charges of the Ghooty forest plantation. The balance, viz., Rupee 0-2-4, which remained unexpended at the end of March last from the amounts drawn by the Deputy-Conservator of Forests previous to 31st October last under the letter of credit system, has been credited in the accounts for this month, as per paragraph 10 of the Proceedings, dated 12th February last alluded to above.

3. No payments have been made from the treasuries in this district for working charges, as provision was only made in the Budget for payments to be made from the Cuddapah treasury for both the Cuddapah and the Bellary plantation; the only charge that was incurred in this district was Rupees 28 on account of pay of the gardeners employed under Mr. Yarde, the Deputy-Conservator of Forests.

4. The amount expended up to 31st March last is Rs. 1,277-1-4, as will be seen from the Statement D, of which the amount accounted for by the submission of bills is Rs. 952-12-0, leaving a balance unaccounted for of Rs. 324-5-4; a portion of this, viz., Rupee 0-2-4, was remitted to the treasury as stated in paragraph 3. The unaccounted balance is, therefore, Rs. 324-3-0. I have requested the Deputy-Conservator of forests to expedite the submission of bills for the same.

5. I herein enclose the report and statements received from the Deputy-Conservator of Forests.

6. A detailed statement of unadjusted balances, as required by paragraph 11 of the Proceedings of the Board, No. 195, of the 12th February 1873, will be shortly submitted.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. H. MASTER,
Collector.

List of Papers sent to the Board of Revenue with letter, dated 5th July 1873, from the Collector of Bellary.

Statements Nos. I., II., and III.,

Forms A, B, C, D, and E.

Annual Administration Report for the year 1872-73 from the Deputy-Conservator of Forests of the Bellary District.

[ENCLOSURE 1.]

DEPUTY-CONSERVATOR'S OFFICE,
CUDDOR, 26*th April* 1873.

No. 17.

From

H. H. YARDE, ESQ.,
Deputy-Conservator of Forests, Cuddapah, etc.,

To

J. H. MASTER, ESQ.,
Collector and Conservator of Forests, Bellary.

SIR,—I have the honour to submit you my annual Administration Report of my range for the official year 1872-73, together with the necessary accompaniments.

SECTION I.

Introductory Remarks, mentioning the Name of the Officer in Charge.—Throughout the year for which this has reference to, I have continued in charge of the Ghooty Railway Fuel Plantation, assisted by my Cuddapah Overseer, Mr. H. Stafford, from 1st April to 16th August 1872, and from that date up to 23rd January 1873 by Overseer T. A. Maduranaigum Pillay. I personally visited the plantation in the months of April, May, June, and July 1872, and February and March 1873. From August 1872 to January 1873, I was unable to travel to Ghooty from press of business in the Cuddapah range, chiefly on account of the boundary dispute between that district and the Venkataghiri Zemindari in the Nellore, together with other minor disputes of the same kind by Shrotriemdars belonging to the Cuddapah District and owing to the operations of the Revenue Settlement Department.

SECTION II.

A.—RESERVED FORESTS, OPERATIONS, AND CONTEMPLATED OPERATIONS.—Nil.

B.—FUEL RESERVES, OPERATIONS, AND CONTEMPLATED OPERATIONS.—Nil.

C.—PLANTATIONS, OPERATIONS, AND CONTEMPLATED OPERATIONS.

Ghooty Railway Fuel Plantation.—In all 30,897 plants were put out from the nursery, of which 7,667 were the casualties re-placed, and the remainder 23,130 freshly transplanted out; and

in the following species 22,410 Melia Azadirachta, 120 Albizzia Lebbek, and 600 Cananga odorata. Towards the casualties the following kinds contributed 2,577 Melia Azadirachta, 5,020 Albizzia Lebbek, and 70 Cananga odorata. The casualties that occurred during the year were 710 Melia Azadirachta, 5,150 Albizzia Lebbek, 37 Cassia florida, and 70 Cananga odorata, making a total of 5,967. 13,520 pits were excavated, and to facilitate planting work some was done by contract. 351 nursery-beds were prepared and added among the following species :—137 Albizzia Lebbek, 12 Cananga odorata, 8 Cassia florida, 184 Melia Azadirachta, and 10 Ippei. 5,136 chains of channelling were sown with seeds, viz., 4,986 Acacia Arabica and 150 Melia Azadirachta. 175 measures Acacia Arabica seeds sown broadcast, 80 chains fencing repaired, 18,770 plants weeded around, and 1,712 chains of channelling weeded and cleared. Besides the works above enumerated other minor works were executed, such as the up-keep of nursery throughout the year by watering and weeding, clearing, spading, and deepening the wells for watering purposes, and repairing fence that was damaged during the heavy rains, etc., etc.

A large nursery has been kept up with a view to re-placing casualties as they occur, and to transplant from during the planting season, as also to supply private individuals and ryots, free of any charge, who may wish to plant around their fields, or water-courses as boundary marks, etc. No requisition of this kind having been made this year, no such distribution was made.

Melia Azadirachta and Acacia Arabica are the only two kinds seemingly thrive best on this plot, as can be seen from previous year's planting. Last year Tamarindus Indica, Acacia amara, and Albizzia Lebbek were plentifully sown in channels experimentally ; the coming year must elapse before a conclusion can be arrived at as to the adaptability of the soil for these kinds.

	Rs.	A.	P.
Plantation working charges, including pitting, rail charge, etc.	952	12	0
Fixed establishment	336	0	0
Total...	1,288	12	0

Against the head of "Fixed Establishment" Rs. 336 has been placed, at the rate of Rs. 28 per mensem, for the head gardener, at Rs. 10, and three under-gardeners, at Rs. 6 each ; but only from November 1872 the amount was drawn from the Bellary treasury, while up to that date, from March 1872, it used to be drawn from the Cuddapah treasury.

In the plantation working charges Rs. 323-12-0 is included, which was paid to contractors for pitting work done to facilitate planting work.

SECTION III.

License and Voucher Forests.—Nil.

Timber supplied to Department Public Works.—Nil, as per Form E.

Timbers, Firewood, Bamboos, etc., removed by Wood-cutters on License.—Nil, as per Form A, heading II.

Quantity of Timbers of all Descriptions felled and stored in Depots.—Nil, as per Form E.

Timbers of all Descriptions sold to Merchants from Depots by Tender or Auction, and the Quantity to be accounted for.—Nil, as per Form E.

Confiscations.—Nil, as per Form A, heading VII.

Measures taken for extending and improving the Forests.—Nil.

Elephants and other Cattle and Carts employed in the Forests and their Work.—Nil.

Free felling.—Nil, as per Statement II.

Any valuable, rare, or new plants.—Nil.

Forest Products.—Nil.

Outstanding Advances.—Nil, as per Form D.

Trespass or Damages committed in the Nurseries, Plantations, or Forests, and the Results of Criminal Prosecutions.—Cattle have trespassed frequently into the plantation ; but they were generally impounded ; and by the collection of the pound fees from the owners I consider it a sufficient punishment, since no damages were done to the plants or nursery, as per Statement III.

SECTION IV.

Yield of forests.—Nil.

SECTION V.

Financial Results.—Nil, as per Form A.

SECTION VI.

General Remarks.—In the first quarter of the official year, viz., in April and May, there was no rain. In June some small periodical showers fell. In the second quarter in August there was some rain and in the beginning and end of September good rain fell which saved the plants greatly from perishing owing to the hot months being passed through.

During the third quarter, viz., October and November, there was much good rain, but advantage could not have been taken of them for planting purposes owing to the want of funds. In December there was no rain.

During the fourth quarter, being the months of January, February, and March, which are dead months in the planting line, there was no rain in the two first months, and the mango showers also failing during March seems a great drawback to the younger plants. Owing to the failures in rain, watering had to be conducted to some extent to save the weaker plants.

All the plants suited to this soil are looking to advantage as each year passes by.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) H. H. YARDE,
Deputy Conservator of Forests

KURNOOL COLLECTOR'S OFFICE,
5th August 1873.

No. 233,

From

J. HOPE, ESQ.,
Acting Collector Kurnool,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—As directed in Board's Proceedings, dated 8th May 1873, Forest No. 71-246, I have the honour to report on the administration of the Forest Department for 1872-73, and to submit six statements prepared in the manner prescribed in G. O., No. 609, dated 16th April 1872.

2. The department was transferred to the charge of the Collector in the month of October 1872 in accordance with G. O., dated 20th August 1872, No. 1,238, and Board's Proceedings, dated 17th September 1872, Forest No. 1-1,849. The forest administered by the special department comprises the whole range of the Nallamallays, extending over a tract of nearly 2,500 square miles.

SECTION I.

3. *Inspection Tours.*—During the year the Assistant Conservator, Mr. Boileau, inspected the whole of the forests under his charge, with the exception of the northern portion of the Markapur Taluq. The plantations and reserves and other important portions were visited more than once and received due attention.

SECTION II.

Reserved Forests.—A portion of the forests situated between the Nandikanama and Yelegode ghauts, comprising an area of about 200 square miles, was ordered to be formed into a reserve in 1869, but, owing to apprehensions being entertained of a falling off in the revenue, the order does not appear to have been strictly enforced, and licenses were granted for felling wood

within these jungles. In September last, however, the whole of the reserve was closed, with the exception of the tract adjoining the Bassavapuram station. This also has since been closed, and felling is now strictly prohibited.

(2.) The question of working the reserve by departmental agency, suggested in paragraph 4 of the G. O. quoted in paragraph 1, will receive my careful consideration when I am in a position to visit the forests so soon as a Covenanted Assistant is appointed to the district as promised in G. O., dated 25th April last, No. 430.

(*B.*) *Fuel Reserves.*—There are no fuel reserves in this district. An attempt was made in this direction in 1866, but after more than Rs. 400 were expended it was found advisable to abandon the project (*vide* Board's Proceedings, dated 10th August 1867, No. 5,143). I find from the Conservator's report for 1869-70 that "plantations for fuel, or, in fact, any sort of timber, except Teak, Sandal, Red Sanders, etc., would not pay in this district."

(*C.*) *Plantations.*—There are two plantations,—one at Wonkaram called "the training and experimental plantation;" and the other at Muttikonda, intended for growing Teak. The former was commenced in 1869-70, and about 15 acres of land were cleared for the purpose. Sandal seed was sown in a small plot of ground, and the plants (550 in number) transplanted in the following year; but they all died, and, at the end of 1870-71, there were only 196 Redwood plants and 554 Wild Mango. The Mango, however, were reported to be "dying." The Forest Report for 1871-72 has not yet been received, and I am unable to state what improvements were made in that period. In the year under review, Mr. Boileau reports that the "plantation is in a thriving condition, although the soil is very poor." It contains 730 Mango trees, 150 Redwood, 50 Somee trees, 15 Billu, 5 Kanaga, and 2 Sambrannie trees.

(2.) In the nurseries, some Red Sanders, obtained from Codoor in the Cuddapah District, and Chirimann and other seeds were sown, but only a few of the Red Sanders are said to have germinated. All the Nallamaddi trees transplanted have died, and also a greater portion of the Somee. Mr. Boileau attributes this failure to the inexperience of the gardeners, who, he says, are but mere coolies, and recommends that some gardeners such as are at Bangalore should be employed. I fear this would be a very expensive measure, and doubt its necessity. Mr. Boileau might try and train some men himself, and offer them higher pay on their improving.

(3.) Since the plantation was commenced in 1869-70, I find that (excluding the year 1871-72, for which I have no account) Rs. 1,095 have been expended on it, as shown in the margin, and there are now scarcely a thousand trees standing on the ground. From one cause or another, the trees planted in one year have all died in the next, and after a trial of nearly four years, and an expenditure of more than Rs. 1,000, "the largest Mango tree is only seven feet in height, with a girth, at three feet from the ground, of not more than five inches; and the largest Redwood tree is about nine feet six inches in height, and has a girth of seven inches at three feet from the ground." Mr. Boileau says that, if the soil were better, the trees would be healthier, and very few casualties would occur. From paragraph 55 of Major Beddome's report for 1870-71, I am led to believe that the plantation, as its name "training and experimental" implies, was commenced partly with a view to train men for service in the forest; but it is clear that the object has not been realized, and that the experiment has not been a success. I therefore doubt the expediency of incurring any more outlay on the work, and request the Board will communicate with the Inspector of Forests, and pass such orders as they may deem proper.

	Rs.	A.	P.
1869-70	177	0	0
1870-71	603	0	2
1872-73	315	0	0
Total...	1,095	0	2

(4.) *Muttikonda.*—The Teak plantation at Muttikonda appears to be a decided failure. This was commenced in 1866-67, when about an acre of ground was cleared for nursery, and 1,000 pits dug and seeds sown. In 1867-68, the growth of the plants was reported to be "very slow," and in the following year the plantation was pronounced to be "rather a failure." In 1869-70, however, it was found that "the trees had taken quite a start," and about 10 to 15 acres of the adjoining ground were, therefore, prepared for extending the plantation. In 1870-71, there

were 300 trees (Teak) on the ground, from three to five feet in height, with a girth of four to five inches, but they were reported by Mr. Morgan to be looking "very unhealthy." In the year under report, there were only 132 trees situated in one-fourth of an acre.

Nundial Nursery.—This is maintained from the Local Funds, but it is placed under the superintendence of the Forest Assistant owing to its being situated close to his bungalow in Nundial.

SECTION III.

License and Voucher System.—The number of bandy-loads of timber removed from the forests under this system was 10,886, and the seigniorage thereon Rs. 24,587½; of bamboos, 7,421½ bandy-loads and 7,294 bullock-loads were removed, and the seigniorage collected, at 5 and 2 Annas, was Rs. 3,230-15-6; 25,867½ kavadi-loads of charcoal were taken at Rs. 1,616-11-6, and firewood 45 bandy-loads and 228 head-loads, at Rs. 55-11-0; the total seigniorage thus realized was Rs. 29,490-14-0 against Rs. 31,745-6-0 last year. The decrease is ascribed chiefly to the closing of the Yelegode forests in September last and to the character of the season. Another reason assigned by Mr. Boileau is that two merchants who had obtained the lease of some forests on the Nellore side of the Velikonda from the Kalahastri Zemindar, at a rental of Rs. 90, "issue out licenses all about the southern portion of the Cumbum Taluq, under-selling our licenses," and otherwise smuggle timber from Government jungles. On this point my predecessor addressed the Collector of North Arcot to induce the Zemindar to adopt the procedure suggested in Board's Proceedings, dated 31st August 1871, No. 3,758.

(2.) *Departmental Operations.*—There was no wood felled by departmental agency during the year. Of the stock in the depôts, 343½ cubic feet of Inamaddi and 82½ of Teak were sold for Rs. 418-2-4, or Rs. 79 below the valuation. The timber is said to have been cut nearly five years ago, and some of the logs became damaged from exposure, and had to be sold at a loss. The stock in hand is 486¼ cubic feet of Inamaddi, valued at Rs. 486-4-0.

(3.) Rs. 78-2-0 worth of Teak, Rs. 18-14-8 worth of Inamaddi, and Rs. 150 worth of firewood for burning chunam, were supplied to the Department Public Works.

(4.) *Free Felling.*—The accounts for all the taluqs have not yet been received. The submission of the report has been delayed owing to the non-receipt of this information. A separate statement will be submitted when the information is received from Mr. Boileau.

SECTION IV.

Yield of Forests.—The quantity of timber taken from the forests under each rate is given in Statement E. Altogether 417,833⅛ cubic feet of wood were removed, and the seigniorage realized Rs. 29,490-14-0, or a little more than one Anna per cubic foot.

SECTION V.

Financial Result.—The receipts from all sources amounted to Rs. 31,011-12-7, and the expenses to Rs. 8,086-8-7, leaving a net profit to Government of Rs. 22,925-4-0 against Rs. 26,204-14-5 last year. The decrease in the receipts has been already explained in paragraph 3, Section III. The increase in the expenditure is principally due to the cost of purchasing Mr. Morgan's bungalow and repairing the same, as sanctioned in G. O., No. 284, dated 13th February 1872, communicated in Board's Proceedings, Miscellaneous No. 1,223, dated 20th idem.

SECTION VI.

General Remarks.—The department has been working under many disadvantages in the year under report. Many of the subordinates were laid up with fever, and one is said to have succumbed to it. Mr. Boileau himself did not escape the fever, but, in spite of it, he has discharged his duties to my entire satisfaction.

(2.) A depôt was opened at Kurnool as an experiment, and 82½ cubic feet of timber appear to have been sold from it. Licenses were permitted to be issued by the Tahsildar at Chagalmarri in the Sirwell Taluq.

(3.) Seventy-eight cases of breach of Forest Rules were prosecuted before the Magistracy, and resulted in the conviction of 141 persons. Smuggling is still carried on under cover of Passes

granted by Achayya's heirs and other private proprietors, but I am in hopes a great check will be placed upon it when these forests are demarcated and surveyed by the Settlement Department. Part of the boundary line of Achayya's durkhast lands has been already cleared, and the Director of Revenue Settlement has promised to send a surveyor at an early date (letter No. 1,173-179, dated 7th June 1873).

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) J. HOPE,
Acting Collector.

[ENCLOSURE 1.]

DEPUTY-CONSERVATOR'S OFFICE,
NANDIAL, *17th April* 1873.

From

E. H. BOILEAU, ESQ.,
Probationary Deputy-Conservator of Forests,

To

J. HOPE, ESQ.,
Acting Collector of Kurnool.

SIR,—I have the honour to forward my report for the official year 1872-73.

SECTION I.

Inspection Tours of the Officer in Charge.—During this year I have travelled over the whole of my range, with the exception of the northern portion of the Markapur Taluq. I have been twice over to the Cumbum side of the Nallamallays to inspect the tannah stations, accounts, and jungles ; but my second visit was of short duration owing to fever, as all my servants as well as myself were prostrated. On this side of the hills I have visited and inspected the stations, accounts, and forests, constantly, especially that portion known as the "Reserves." I have also been to Kurnool several times to look after the Teak depôt, as well as to consult the Collector on forest affairs ; and, lastly, I have visited the plantation at the foot of the hills very often, and I twice went to Muttikonda, which is in the centre of the hills, at which place I have a small Teak plantation to look after.

SECTION II.

Reserved Forests and contemplated Operations.—In September last, the Yellegode forests were closed, and I should recommend the opening of two new stations,—the one at Nulla Carlwar, the other at Cottapully,—if Government will increase my establishment. It will throw open to the public a large tract of jungle, which is not now used by the public, except for smuggling ; it will give a fairer portion of the jungles to the peons stationed at Mooslemudgoo, Venkattapuram, and Yellegode, to look after (as these peons have a great deal more jungle to watch than they can manage) ; it will also increase our revenue, which has decreased on account of the closing of the Yellegode forests, as this station before it was shut was one of our best paying stations. There is still one more station open in the reserves, viz., Bassavapuram. I propose closing it next official year, 1873-74. I should have done so before, but I thought it would be better to allow the revenue to decrease gradually. When this station is closed, our "Reserves" will not be so "nominally" as they have been since they were formed. A great deal of Teak is cut in the "Reserves" and conveyed away at night time. The whole transaction is accomplished during the night. When the wood arrives at its destination, it is stocked in the carpenters' houses at night, and, when made up, is sent off at night ; and I hear that the carpenters of Nandial and other places abet the smugglers by giving them high cooly-hire. It is all done as stealthily as possible ; in fact, so much so, that I never hear about it until the wood has been cut up and made into cot legs, etc., and sold ; then a person will come and tell me, when it is too late, that he saw some Teak splinters near such and such a carpenter's house.

B.—Plantations, Wonkaram.—This plantation is in a thriving condition, although the soil is very poor. In extent it is about 15 acres, situated at the foot of the hills, on the road leading to Muttikonda, and contains the following trees :—730 Mango trees (*Mangifera Indica*), 150 Redwood trees (*Adenanthera Pavonina*), 50 Somee trees (*Soymida febrifuga*), 15 Billu trees (*Chloroxylon swietenia*), 5 Kanaga trees, 2 Sambrannie. The nurseries contain Red Sanders, Chirimann, and other trees. The Red Sanders I obtained from Codoor as an experiment, but only a few have germinated. All the Nullamuddy trees I transplanted have died, as also a greater portion of the Somee. I attribute this failure to the inexperience of the gardeners, who are really nothing more than coolies. The only thing they understand is to water the trees and dig ; I am obliged to show them how to do almost everything which a gardener by trade would not require showing. I should advocate, therefore, that gardeners, such as are at Bangalore, be employed ; at any rate, have a head gardener of this sort. The expenditure has been Rs. 315. This is the pay of the so-called gardeners, and also a few extra coolies put on by me to assist the permanent workmen in the hot weather to water the trees twice a-day. The largest Mango tree is about 7 feet in height, with a girth of 3 feet from the ground of 5 inches. The largest Redwood tree is about 9 feet 6 inches in height, and has a girth of 7 inches at 3 feet from the ground. The plantation is getting on, and if the soil was better the trees would be healthier, and very few casualties would occur. I may safely assert that it is through my constantly visiting this estate that it has thrived, and also that I had issued orders to my two nearest station peons to go and visit the plantation once a-week at least. The work performed on the Wonkaram plantation was watering trees daily and also the nurseries, pitting, transplanting, forming new nurseries, cutting bamboos for fence and repairing fence, re-building the two huts (as one was blown down, the other burnt), hoeing round the trees, and weeding with grass knives.

Mutticonda.—This is a Teak plantation situated about 18 miles from Ermapad station and 11 miles from the foot of the hills. It is about one-fourth of an acre in extent only, and contains 132 Teak trees (*Tectona grandis*). Four casualties have occurred during the year. The largest tree is 15 feet in height, with a girth of 10 inches at 3 feet from the ground. The work performed is as follows :—Trees pruned, grass cut in plantation, fence repaired, fire-path cut round the hut and plantation (20 feet wide) ; these works were performed both times I visited the place. The expenditure has been Rs. 24-14-0.

Nandial Nursery.—This is a small plantation, which surrounds the forest bungalow, and is kept up by the Local Funds. I have had a trench, 3 feet×3 feet, dug all round this plantation, as cattle used to trespass and eat off the heads of the young trees ; but now as no cattle can enter the nursery, plants are all thriving. Some have grown at least 5 feet within the year. The work performed is as follows :—Trees and nurseries watered daily, in rainy weather weeded with grass knives, in the hot season weeded clean, casualties re-placed, pits dug, new nursery-beds formed, etc. The nursery was intended to supply ryots with trees and the Revenue authorities for planting avenues. But I have had no application at all for this year. The expenditure has been pay of the gardener Rs. 7 per mensem and 30 Rs. for improvements, out of which I have a balance left of Rupees 17-4-5 ; this all comes out of the Local Funds as also did the cost of the trench, Rs. 60. I intend planting up two more small plots next year.

C.—Fuel Reserves and contemplated Operations.—None.

SECTION III.

Voucher and License System.—The number of bandies brought out of these forests is as follows :—

Bandies, at Rs. 6	732 (Reserved wood worked).
,, at ,, 3	4,695 (do. unworked).
,, at ,, 2	651½ (Jungle-wood worked).
,, at ,, 1	4,807½ (do. unworked).
,, at ,, 5	7,421½ (Bamboos).
Bullock-loads, at As. 2	7,294 (do.).
Cavadies, at Anna 1	25,867½ (Charcoal).
Head-loads, at Pies 9	228 (Firewood).
Firewood, at Rupee 1 per bandy	45 (do.).

From the last heading we derive only a few rupees per annum, as it is priced too high. I think that, if it be reduced to 4 Annas per bandy, we shall get many more bandies, as they take the firewood for sale ; the durkhast owners are kept up by the number of bandies of firewood they sell ; some of them price it at 4 Annas, some at 6, and others at 8 Annas ; and if we reduce the rate, we will get all the bandies from the durkhast owners, as our jungles contain a greater assortment of timbers, and, therefore, they will prefer coming to us.

SECTION IV.

Expenditure and Yield of Forests.—The expenditure has been Rs. 1,501, or about 800 Rs. more than last year. This I can readily account for, first, the cost of purchasing the forest bungalow at Rs. 510 from Mr. Morgan ; secondly, the repairing of same at a cost of Rs. 400 ; and, thirdly, the repairing of Cumbum (?) at about 60 Rs. The other items for expenditure are carriage of confiscated timber, plantations, and purchase of tools, also collection of seeds. The list is as follows :—

			Rs.	A.	P.
I.	Carriage of timber		108	2	0
II.	Purchase of tools, etc.		55	0	0
V.	Collection of seeds, etc.		16	4	0
VI.	Plantations	Wonkaram	315	0	0
		Mutticonda	24	14	0
X.	Buildings, etc.		981	12	0
		Total...	1,501	0	0

So, if you deduct the cost of buildings, the expenses would have been about Rs. 166 less than 1871-72. The next official year we intend felling 200 logs of wood, 100 for Cumbum, and 100 for Nandial. There being no merchants' depôts on the Cumbum side greatly aids us in disposing of our stock in that depôt, but on this side there are eighty-six sowcars, who all manage to under-sell us, and, consequently, I only sold one log, and three by auction as they were damaged. Our department offers to the public old wood at 1 Rupee per cubic foot, when they can get the same description of wood from the merchants in good condition far cheaper. Is it, therefore, to be wondered at that they prefer the merchants' wood ? The Teak depôt at Kurnool is cleared out at the commencement of the official year. I sent up seventeen logs which have been all disposed of ; the rate was Rs. 1-14-0, seigniorage 1-8-0, *plus* 6 Annas, cost of cartage up to Kurnool. The Public Works Department have taken Rs. 78-2-0 worth of Teak, and 18-14-8 worth of Innamuddy, and 150 Rs. worth of firewood for burning chunam. This is an improvement, as last year the demand for wood from other departments was *nil*. The whole of last year I was attempting to obtain tenders for felling, but I failed. At the end of March 1873 I was enabled to obtain a contractor for the felling on the Cumbum side, but am still without a contractor on this side. The yield of forest-fruits, etc., has been nothing, as Mr. Chase informed me that I was not to sell any forest-produce, as it interfered with the rights of the Chensuars. The Chensuars no doubt manage to make a little out of forest-fruits, etc., but the principal parties concerned in this trade are the merchants who send their own men into the forests (and do not, as is supposed, purchase it all from the hill-men). They may purchase a small quantity, about one-twentieth of the jungle produce brought out of the forests. The Chensuars are, in the first place, too lazy to work, except to obtain their daily food.

SECTION V.

Financial Results.—The revenue has been Rupees 31,011-12-7, or Rupees 2,581-13-4 less than that of last year. This can be accounted for in many ways, firstly, the closing of the Yellegode forests in September ; secondly, no fruits or other forest-produce was sold during 1872-73 ; thirdly, it has been a very rainy year (it, the rain, having commenced on the 17th of June, and gave over the third week in November), and consequently a loss in revenue to the Forest Department ; and, lastly, two Komities have leased the forests on the Nellore side

of the Velikonda from the Kalastry Rajah at a rental of Rupees 90 only, but they issue out licenses all about the southern portion of the Cumbum Taluq, under-selling our licenses of course, and, therefore, taking out of our hands a good portion of last year's revenue. The wood covered by these licenses is all dragged through the Government jungles, and consequently a great portion of it is felled in Government jungles, as the parties holding their licenses would naturally not care to go to the Nellore side of these hills for their wood when it is growing close to their villages.

SECTION VI.

General Remarks.—I and a great number of my establishment have been continually having fever ; but this must be expected in our department, as our work is of such a nature that it is impossible to avoid it, however careful you may be. I am sorry to say that one peon at the commencement of the official year succumbed to it. While inspecting the forests, I came upon a large tract of Nullamuddy, some miles in area, with a few Chirimann and Yegi interspersed. But I have seen very few Teak trees. I am unable to append the usual accounts, viz., " firewood on free pass," etc., etc., as I have not yet received them from the different Tahsildars, but on receipt of the same I will despatch them as soon as possible.

The Sirwell Tahsildar commenced issuing licenses and tickets at Chagalmarry this year at my suggestion, and was carried out under the orders of the Collector ; by doing this we have saved the ryots (who live about the southern portion of the Sirwell Taluq and that portion of the Cuddapah District bordering on the aforesaid taluq) the necessity of coming all the way to Nandial to procure licenses, etc. The subordinates have all done their work very satisfactorily during the year, and therefore I need not report upon any particular individual.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) E. H. BOILEAU,
Probationary Deputy-Conservator of Forests.

NORTH ARCOT COLLECTOR'S OFFICE, CHITTOOR,
3rd September 1873.

No. 544.

From

W. S. WHITESIDE, ESQ.,
Collector of North Arcot,

To

H. E. STOKES, ESQ.,
Acting Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to forward the Annual Report on the forests of this district for the official year 1872-73, submitted by the Deputy-Conservator of Forests of this district to Major Beddome, the Inspector of Forests, and transmitted to this office by the latter officer, as it has been ordered by Government that no Annual Report need be submitted by the Inspector of Forests, and that each Collector, as Conservator, should send his Forest Administration Report to the Board of Revenue, in view to the Board drawing up and submitting one general and comprehensive report to Government from these reports.

2. The report herewith submitted has been prepared, the Board will observe, in the manner prescribed in paragraphs 24 to 26 of the G. O., dated 16th April 1872, No. 609, on the Forest Administration Report for 1870-71.

3. Of the two fuel reserves, Mamandur and Amboor, the latter has, upon the representation of the villagers that their grazing and communal rights would be infringed by the enclosing or fencing in of the reserve, been directed by Government, in their order of the 11th June 1873, No. 591, to be abandoned. It now becomes necessary to search for some other site for the reserve; but there is not, as far as I can foresee, the slightest hope of finding one, for, as all the forests are open to the same right of grazing as the Amboor reserve, there is sure to be the same objection to any other piece of forest that may be selected for a reserve as there has been to that at Amboor.

4. I have, in my letter of the 21st July last, No. 422, written at length on this subject, and now await the orders of Government thereon.

5. The expenditure on these two reserves from the commencement up to date has been Rs. 2,078-8-11 and Rs. 193-8-0, respectively.

6. There are eight railway fuel plantations in the district. Of these three plantations, about 240 acres in extent, have had no money spent on them, the ground having been only recently taken up. On the remaining plantations, which are 980 acres in extent, Rs. 5,942-0-10 have been laid out during the official year. The number of trees, which are chiefly Casuarina, permanently established in these plantations is 455,745. In the year under report, 252,044 trees were planted out. Of this number 5,000 were planted in the reserve.

Trivellam Plantation.	Thengal Plantation.
Verinjeepuram do.	Keelminnel do.
Chaynoor do.	Vannivedu do.
Gazerlmandum do.	Ammoondy do.

7. There is an experimental plantation* in the district kept up as a training school for planters. It is 25 acres in extent, and contains about ninety different kinds of jungle trees, besides some Sandal and red Sanders plants.

* Ammerdy Plantation.

8. The expenditure on all the plantations for the year was Rs. 6,053-12-6.

9. The receipts from the forests in the district during the year amounted to Rs. 19,830-2-8, of which Rs. 13,739-6-2 were derived from the sale of timber, firewood, bamboos, and charcoal at the forests and from seigniorage, and Rs. 5,404-4-6 from the sale of timber and Sandalwood brought to the depôt by the Government agency.

10. The conservancy and working charges amounted to Rs. 8,059-0-11, and the expenditure on account of establishment was Rs. 9,656-4-7, making a total expenditure of Rs. 17,715-5-6.

11. The value of timber on hand on the 31st March 1872 and of timber felled during 1872-73 was Rs. 5,879-4-10. Timber to the value of Rs. 4,498-8-10 was sold during the year, leaving timber on hand to the value of Rs. 1,384-12-0. This timber consists chiefly of Redwood roots and Redwood posts.

12. There has been an increase of Rs. 3,384 in the forest revenue during the year under report, and this is due to there having been an increased demand for junglewood, bamboos, and firewood. None of the reserved timber has been allowed to be felled during the year on license.

13. The smuggling of wood from the forests in the district is, I regret to observe, very great; but when the arrangement suggested in my letter of the 22nd January last, No. 41, for placing all the Government forests in the district under the charge of the Deputy-Conservator is matured, approved, and sanctioned, I hope to be able, in a great measure, to put down this obnoxious practice.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) W. S. WHITESIDE,
Collector.

[Enclosure 1.]

Office of the Deputy-Conservator of Forests,
Vellore, *3rd April* 1873.

From

T. SHEFFIELD, Esq.,
Deputy-Conservator of Forests, North Arcot,

To.

Major R. H. BEDDOME,
Inspector of Forests.

Sir,—I have the honour to submit the Administration Report on the North Arcot forests for the year 1872-73.

SECTION I.

Inspection Tours of the Officer in Charge.—I have been in charge the whole of the year, during which time I visited the forest in Vellore, Chendragherry, and Polur Taluqs repeatedly, paid one visit to Palmanair forests, visited the Tallia Mullia Sandal plantation in the Coimbatore District, and monthly inspected the reserves and plantations (eleven in number) in this district, being absent from head-quarters 192 days.

SECTION II.

A.—Reserved Forests.—None.

B.— Fuel Reserves.

Mamundoor Reserve.—It is four square miles in extent, situated close to the line of rail, about 8 miles north of the Triputty Station, is entirely enclosed and strictly reserved, neither man nor beast being allowed in. Two wells have been sunk and two nurseries of about half an acre each established. During the year 5,000 plants have been planted from the nurseries. There is a very marked improvement in this reserve since its enclosure ; young trees of natural growth are springing up in thousands, and the trees formerly felled for railway fuel are throwing out vigorous shoots, which being protected from cattle and from being felled by the wood-cutters shows the advantage of enclosures.

It is certainly money well laid out, for, leaving out of consideration the increase of fuel-wood, there are in the reserve, I should think, over 50,000 young Redwood saplings which being protected from the herdsmen's axe will re-pay the cost of the fence several times over. The expenditure during the year was Rupees 654-7-3, most of which was paid for felling the jungle round the reserve for boundary stones and masonry pillars for demarcation. Total expenditure from commencement up to date Rupees 2,078-8-11.

Amboor Reserve.—This is 6 square miles in extent, situated about 3 miles south of the railway, opposite Amboor Station. The jungle has been felled several times for railway fuel, and requires a great deal of planting and care. It has not yet been enclosed, because the villagers disputed our right to exclude their cattle, and I received orders to stop all work pending the settlement of the dispute ; the matter has now been arranged, and Rupees 2,000 lately sanctioned to enclose the land ; and up to this time we have felled a belt of jungle about 6 yards wide round the reserve, and erected boundary stones and pillars for the survey operation, and shall push on as rapidly as possible with the fencing. Most of the fencing will be a dry stone wall on account of the rocky nature of the ground, with here and there a trench, bank, and aloe hedge where the soil will allow of it.

The reserve has a frontage of 3 miles, with a depth of 2 miles, but the ground being very hilly, our fence will probably be over 12 miles in length. The expenditure is Rupees 193-8-0.

C.—Plantations.

Plantation.	Acreage.	Nature of.	Expenditure.					Receipts.	No. of Trees planted out and Casualties replaced.	No. of Casualties that occurred during the year.	No. of Trees permanently established.	Expenditure from commencement.	Remarks.
			Planting Charges including Pitting and Channelling.	Fencing.	Establishment.		Total.						
					Permanent.	Hired.							
			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.					Rs. A. P.	
Trivellum, situated about 8 miles east of Vellore Station at the junction of the Poiney and Palar rivers about a mile from the railway.	434·87	Chiefly Casuarina equestifolia, but containing also a few Cassia of different species. A Railway Fuel Plantation.	1,255 9 0	211 11 9	.....	.....	1,467 4 9	87 4 6	45,944	20,000*	1,36,498	9,163 10 6	*These 20,000 were destroyed by the storm of 2nd May, but all have been re-placed, the bund and fencing repaired, and the planting finished. The largest plants are 7 years old, and averaged 60 feet high and 30 inches circumference at the ground. There are about 20,000 of them, which, if felled and sold now, would realize more than the whole plantation has cost; but, of course, they will not be felled for some years to come, and I mention it merely to show how rapidly they have grown. The average cost per plant, including cost of land, fencing, and all contingent charges, is 1 Anna 1 Pie nearly.
Veeringipoorum, situated about one mile south of the Railway Station of that name in the old bed of the Palar river.	260·48	Casuarina equestifolia. A Railway Fuel plantation.	1,893 2 10	228 0 0	.....	.....	2,121 2 10	Nil	80,000	.....	191,247	4,750 15 0	There are still about 50 acres of this ground yet to be planted when there will be a total of about 2½ lakhs of trees or about 950 to the acre. The cost per plant, including every expense up to date, is 5 Pies nearly. The largest plants are about 20 feet high, and are 3 years old.

Cheynoor, situated close to the Railway and 2 miles west of Vellore Station.	129·98	It is planted with Casuarina, Albizzia Lebbek, Acacia Arabica, Alangium Lamarkii. A Railway Fuel Plantation.	1,525 5 9	.....	.....	.....	1,525 5 9	Nil.	73,000	.. ...	81,000	3,424 0 0	The expenses on this plantation are a great deal heavier than on the others; this is owing to the nature of the soil, the others being sand, and this hard gravel. The trees planted here also require more care and attention than Casuarina do, and water is only to be had at a great depth. The plants are, however, healthy although not grown much. 50 acres of this land has still to be planted. The cost per plant up to date, including fencing, sinking wells, *etc.*, is 6 Pies nearly.
Gazerlamundum, situated close to the Railway and 2 miles south of the Triputty Station.	44·67	Planted with Casuarina equestifolia A Railway FuelP lantation.	793 15 6	.....	.....	.....	793 15 6	Nil.	44,000	.....	44,000	1,185 14 10	The planting was commenced and finished during the year, and all the plants are thriving. The cost has been, including fencing and wells, a little over 5 Pies per plant. We expect to take up about 200 acres adjoining land, and are preparing nurseries for seedlings for it.
Tengal situated about 1½ miles south of the Poiney railway bridge, and opposite to the Trivellum Plantation.	About 110	Casuarina equestifolia. A Railway Fuel Plantation.	34 4 0	.....	.....	.....	34 4 0	Nil.	2,100	.....	3,000	34 4 0	This plantation was taken over from the Revenue Department at the beginning of the year; it is about 9 acres, but with waste land adjoining about 110; this waste has not yet been handed over, but, I believe, it will shortly be. 900 trees are from 20 to 40 feet high; the remainder were planted during the year.
Keelminnel, situated south of the Palar river, opposite the *Trivellum* Plantation, and about 1 mile from the Trivellum Railway Station.	About 150	Casuarina equestifolia. A Railway Fuel Plantation.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Only just taken over, and we are now fencing in the ground, sinking wells, and preparing nurseries.

C.—Plantations.—(Concluded.)

Plantation.	Acreage.	Nature of.	Expenditure.					Receipts.	No. of Trees planted out and Casualties replaced.	No. of Casualties that occurred during the year.	No. of Trees permanently established.	Expenditure from commencement.	Remarks.
			Planting Charges, including Pitting and Channelling.	Fencing.	Establishment.		Total.						
					Permanent.	Hired.							
			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.					Rs. A. P.	
Vanevedu, situated north of the Palar river near Wallajah, and about four and-a-half miles from Arcot Station.	About 80	Casuarina equestifolia. A Railway Fuel Plantation.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Only just taken over; part of the ground has been planted, but the plantation is not in good order; most of it will have to be cleared and re-planted. The plants have not yet been counted. There is enough waste land to make up the plantation to 100 acres.
Ammoondy, situated on the Palar river about six miles west of Vellore, and about three miles from the railway.	About 60	Casuarina equestifolia. A Railway Fuel Plantation.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Only just given over, and no work yet commenced.
Ammerdy situated at the foot of the Javadi Hill, about 12 miles south of Vellore.	25	All kinds of jungle trees, Sandal and Sanders plants. Experimental plantation for training planters.	.....	.....	.....	.....	111 11 8	Nil.	2,000	.....	11,000	2,455 11 9	We have about 90 different kinds of jungle trees growing in this plantation; also some Sandal and some Sanders plants; it is an experimental plantation, and kept up as a training school for our gardeners.

From the above it will be seen that in the different plantations we have planted 252,044 plants at a total cost of Rs. 6,923-13-5* ; this amount also includes the up-keep of previous years' plantings.

* Includes the Reserves.

SECTION III.

License and Voucher Forests and Operations therein.—The public are allowed to fell timber, bamboos, etc., on license in all our forests, but, in truth, we have very little good timber to fell. There is a little Sandalwood on the Javadi hills, and a good deal of young Redwood stumps in the Chendragherry forests, and bamboos are plentiful in all the forests, and from these and fuel most of our revenue is derived. Nearly all building timber of the better sorts is imported from the adjoining districts, but I hope our plantations will, in a few years, yield a good supply of good cheap building timber.

SECTION IV.

A.—Statement showing the Receipts and Disbursements of the North Arcot Forests for the year 1872-73.

Classifications.	Amount.	
	RS. A. P.	RS. A. P.
Receipts.		
I.—Sale of timber and Sandalwood brought to depôt by Government agency	5,404 4 6	
II.—Sale of timber, firewood, bamboos, and charcoal, removed from the forests by purchasers, including seigniorage.	13,739 6 2	
III.—Duty on foreign timber	.....	
IV.—Permit fees and rent of jungles and privileges ...	.....	
V.—Grazing dues	.....	
VI.—Sale of fruits, Babul pods, and other minor forest-produce...	257 4 6	
VII.—Sale of confiscated drift and waif timber	157 2 6	
VIII.—Fines and forfeitures	.....	
X.—Miscellaneous receipts	6 1 0	
Value of timber supplied to Public Works Department	.....	
Amount refunded by the Deputy-Conservator of Forests, being the unexpended cash balance on the 31st March 1873	266 0 0	
Total, Receipts...	.....	19,830 2 8
A.—*Conservancy and Working Expenditure.*		
I.—Timber expenses for felling, cutting, clearing, sawing, and the transport of timber by land or water to depôts ; also charges for storing, securing, watching, piling, and arrangements for selling timber...	850 10 8	
II.—Purchase of elephants, cattle, and dead stock, tools and plant	7 9 6	
III.—Feed and keep of elephants and cattle	.....	
IV.—Rent of leased forests and seigniorage paid for timber felled in leased forests, shares of villagers and others in the revenue of forests	.....	
V.—Charges connected with the collection of revenue on grass, fruits, and miscellaneous forest-produce ...	.....	
VI.—Plantations	6,075 14 2	

A.—Statement showing the Receipts and Disbursements of the North Arcot Forests for the year 1872-73.—(Concluded.)

Classifications.	Amount.	
	RS. A. P.	RS. A. P.
A.—*Conservancy and Working Expenditure.*—(Concld.)		
VII.—Forest work, viz., cutting of creepers, protection of forests or trees against fire, and other work for the conservancy and improvement of the forests, charges for selecting, working, girdling of the trees to be felled	847 15 3	
VIII.—Forest survey, topographical and valuation survey to ascertain the contents of forest and annual rates of timber production	.....	
IX.—Experiments to test the value of timber of different kinds	1 5 0	
X.—Communications, buildings, and minor works, fences, boundary pillars, and posts, and boundary division paths	275 10 4	
Total, Conservancy and Working...	.....	8,059 0 11
B.—*Establishment.*		
I.—Salaries—		
2. Pay of Executive officers	2,911 10 8	
3. Office Establishment	394 0 0	
4. Forest Conservancy Establishment	3,027 6 4	
5. Timber depôt and Work Establishment	688 14 11	
6. Deputation and Special Allowances	.....	
II.—Travelling Allowances—		
2.—Executive Officers	1,641 0 0	
3. Subordinate Establishment	347 9 3	
III.—Contingencies—		
1. Batta for Office Establishment	.....	
2. Stationery	.....	
3. Office-rent, carriage of tents, and office records ...	.....	
4. Pay of Police Guards...	.....	
5. Sundries	645 11 5	
Total of Establishment...	.....	9,656 4 7
Total of Expenditure...	.....	17,715 5 6
Balance—		
Balance of timber in depôt on 31st March 1872	4,388 4 10	
Add timber felled during 1872-73	1,491 0 0	
Deduct timber sold in 1872-73	.....	4,494 8 10
Balance of timber on hand	.....	*1,384 12 0
* Particulars of the balance of timber on hand and valuation—		
3,136 Maunds of Redwood roots, valued at Annas 3 and $5\frac{157}{960}$ Pies per maund	682 12 0	
530 cubic feet of Redwood posts, valued at Rs. 1 per cubic foot	530 0 0	
$257\frac{1}{2}$ cubic feet of Mango beams, valued at Annas 10 and $8\frac{288}{512}$ Pies per cubic foot	172 0 0	
Decrease in stock	.....	3,003 8 10
Financial results, balance against the North Arcot forests	.....	888 11 8

B.—Statement showing in Detail the Timber felled in the North Arcot Forests during the year 1872-73.

Division of Range.	Description of Timber and other Forest-produce.	No. of Cubic Feet.	No. of Maunds.	Rate of Valuation per Cubic Foot.	Rate of Valuation per Maund.	Total Valuation.
1	2	3	4	5	6	7
				RS. A. P.	RS. A. P.	RS. A. P.
Vellore ...	Sandalwood	...	40	.....	3 0 0	120 0 0
Kurcumbadi.	Redwood posts	446	...	1 8 0	.....	669 0 0
Do. ...	Do.	530	...	1 0 0	.....	530 0 0
Vellore ...	Mango beams	257½	...	0 10 8 128/515	.....	172 0 0
					Total...	1,491 0 0

C.—Statement of Timber, etc., sold from the Depôts of the North Arcot Forests during the year 1872-73.

Name of Depôt.	Description of Timber or other Forest-produce; Number of Cubic Feet or Maunds sold and Rate of Valuation per Cubic Foot or Maund.	Total Valuation.	Total Amount actually realized.	Difference between Columns 3 and 4.	Explanation of difference.
1	2	3	4	5	6
		RS. A. P.	RS. A. P.	RS. A. P.	
Kurcumbadi...	11,800 Maunds of Redwood roots	2,297 0 10	2,297 0 10	.....	Valued under old Rules.
Vellore ...	436 Maunds of Sandalwood	1,308 0 0	2,143 9 8	835 9 8	
Kurcumbadi..	593 cubic feet of Redwood posts	889 8 0	963 10 0	74 2 0	
	Total...	4,494 8 10	5,404 4 6	.....	
Total showing aggregate Increase ...		... ...	... ...	909 11 8	

D.—Statement containing the Particulars of the Stock in hand at the commencement and close of the official year 1872-73.

Description of Timber or Forest-produce.	Number of Cubic Feet.	No. of Maunds.	Rate per Cubic Foot or Maund.	Total Valuation.
1	2	3	4	5
			RS. A. P.	RS. A. P.
Redwood roots	...	14,936	0 3 $2\frac{2}{7}\frac{3}{4}\frac{7}{6}\frac{7}{8}$	2,979 12 10
Sandalwood	...	396	3 0 0	1,188 0 0
Redwood Posts	147	...	1 8 0	220 8 0
Total...	147	15,332	Total...	4,388 4 10
Add total valuation of timber and forest-produce felled during the year as per column 7, Statement B.				1,491 0 0
			Total...	5,879 4 10
Deduct total valuation of timber, etc., sold during the year as per column 3, Statement C.				4,494 8 10
			Compare remainder with total under column 5...	1,384 12 0

E.—Statement showing the Quantity of Timber, etc., taken from the North Arcot Forests on license during the year 1872-73.

Description of Timber or Forest-produce.	No. of Cubic Feet.	No. of Maunds.	Rate of Seigniorage or sale per Cubic Foot or Maunds.	Total Receipt under each head.
1	2	3	4	5
			RS. A. P.	RS. A. P.
Junglewood	3,472 bandy-loads.	.....	1 0 0	3,472 0 0
Firewood...	1,528 do. ...	.....	1 0 0	1,528 0 0
Charcoal	514 do. ...	.....	1 0 0	514 0 0
Bamboos	7,234 do. ...	.....	0 8 0	3,617 0 0
Bark	139 do. ...	.....	1 0 0	139 0 0
Junglewood	49 head loads ...	.....	0 2 0	6 2 0
Firewood	2,670 do. ...	.....	0 0 9	125 2 6
Charcoal	551 do. ...	.....	1 1 0	34 7 0
Bamboos	2,514 do. ...	.....	0 1 0	157 2 0
Bark	23 do. ...	.....	0 2 0	2 14 0
Railway fuel	.....	.....	... ..	4,143 10 8
Tamarind fruits and other minor forest-produce	.....	.....	.....	257 4 6
	Total...		.....	13,996 10 8

SECTION V.

General Remarks.—There is a steady increase in the revenue which is gratifying. Last year it was Rupees 16,446, this year it is Rupees 19,830-2-8 ; and this has been attained without in any way over-working the forests ; in fact, none of the reserved timbers have been allowed to be felled on license, but there has been an increased demand for "junglewood," bamboos, and firewood, although smuggling of wood from the forests is still very prevalent, I think it is hardly so bad as formerly. There is though plenty of room for improvement still, and as soon as the rules which have been agreed to by the Collector and the Inspector of Forests are sanctioned, and become known in the district, we may fairly look for a considerable increase of revenue and a corresponding decrease in smuggling if the heads of villages do their duty. I have always maintained that it is almost an impossibility to smuggle wood from the forests without the knowledge of the villagers living along the foot of the hills ; and to induce them to take an interest in the forests they are allowed a percentage on all forest-produce passing through their villages from the forests on license, and 50 per cent. of the sale-proceeds of all smuggled timber confiscated by them, yet many of them render us aid very unwillingly ; I believe nearly all of them pocket a good deal of money for allowing smuggled wood to pass, and some of them connive with the forest peons to defraud Government. A case was brought before the Joint-Magistrate some time ago where the village head allowed timber, to the value of more than Rupees 100, to be felled without license, for which he was suspended for six months. Such cases are often occurring, but it is seldom we can get evidence sufficient to warrant us in bringing the case before the Magistrates, for hitherto the people have thought very little of the forest officer, and cared very little about his orders ; but this, I trust, will be all altered shortly, when having the support of the Collector ; his authority will be more respected, and his orders more promptly obeyed.

Our expenditure has increased with the increase of receipts, but this is unavoidable where we have such large planting and conservancy operations, and it may be expected to increase yearly for some years to come under these heads.

Forester Mr. W. Newman had charge of the plantations throughout the year ; they are scattered between Amboor on the South-West Line and Tripatty on the North-West Line, and it required a hard working man to superintend them efficiently. I am glad to report that he has done so ; he has worked hard, and his work is well done.

Forester Mr. Thistlewaite died at the end of the year, and a young man named Newman has been appointed in the department too short a time for me to know his value ; but he appears to take an interest in his work, and, as he is young and strong and intelligent, he will most likely make a good Forester.

The health of the establishment during the year has been pretty good ; at times nearly half the establishment have been down at once with fever or dengue, but only for a few days, and they are again at their work.

I have the honour to be,

Sir,

Your most obedient servant.

(Signed) T. SHEFFIELD,

Deputy-Conservator of Forests.

COLLECTOR'S OFFICE, CUDDALORE,
10th October 1873.

No. 379.

From

H. E. SULLIVAN, ESQ.,
Acting Collector of South Arcot,

To

H. E. STOKES, ESQ.,
Acting Secretary to the Board of Revenue, Madras.

SIR,—With reference to Board's Proceedings, Forest No. 21, dated 8th May last, I have the honour to submit the report on the administration of the forests in this district in 1872-73, received from the Deputy-Conservator, and the usual statements which accompanied it.

2. The report contains a full and detailed accounts of the forest operations during the past year, and I consider it unnecessary for me to enter into a recapitulation of them. The general results of the year may be summarised as below.

3. The entire receipts amounted to Rupees 4,100, which was less than the estimated receipts by Rupees 900 only. This difference is the net result chiefly of a decrease below the estimate in Items I. and II. and an increase in Item VI. The expenditure under all heads amounted to Rupees 9,785, exceeding the receipts by Rupees 5,685. The excess over the sanctioned grant for the year amounted to Rupees 2,285, of which Rupees 1,843 were in the salary and travelling allowance of the Deputy-Conservator and of his Office Establishment, including contingencies and the rest in the conservancy and working charges. The increase in the former was in consequence of the provision made in the Budget having been at the old rates of salary and travelling allowance, while the increased rates were drawn from November 1872. The increase in the working charges was the result of more extended planting operations than were originally contemplated which were favoured by the unusual quantity of rain which fell during the past year.

SECTION II.

4. (*A.*) *Of the Deputy-Conservator's Report.*—The operations of the year in the reserved forests consisted in clearing away tangled under-growth and creepers from Teak and other valuable timber trees, and fencing them where necessary, besides carting 813 cubic feet of timber to market depôts and felling 1,614 cubic feet. Felling operations were much checked by the feverishness of the jungles.

SECTION II.

5. (*B.*)—This part of the Deputy-Conservator's Report refers to fuel reserves, of which there are ten altogether, four being termed local fuel reserves and the rest railway reserves. The estimated area of each reserve, the work performed in each, and the cost of the operations, are detailed in the Deputy-Conservator's Report.

SECTION II.

6. (*C.*)—This refers to plantations, three in number, of which the one at Chengam, conveniently situated, has been established experimentally for training up the Subordinate Conservancy Establishment. The operations in all these appear to have been judiciously conducted.

SECTION III.

7. The removals from the forests under the license and voucher system have been 12,963 cubic feet of jungle timber, 1,335 bandy-loads of bamboos, and about 181 tons of firewood and charcoal, besides the large quantity of 34,240 maunds of minor forest produce.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) H. E. SULLIVAN,
Acting Collector.

[ENCLOSURE 1.]

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
CUDDALORE, *26th September* 1873.

From

H. L. WOOLDRIDGE, ESQ.,
Deputy-Conservator of Forests,

To

H. E. SULLIVAN, ESQ.,
Collector and Conservator of South Arcot.

SIR,—I have the honour to forward the Administration Report of the South Arcot forests for 1872-73, with the usual statements attached.

SECTION I.

Inspection of the Officer in Charge—April.—On the 6th April 1872 I left Cuddalore for Tindevanum, remained in camp there thirteen days to prepare the annual returns; on 22nd proceeded to Gingee reserves and inspected two reserves and the young plantations; on 24th arrived at Trinomallay depôt. The Overseer inspected five fuel reserves in his range and pointed out the boundaries of Peringalathoor reserve to the Deputy-Collector for a final adjustment of them and several claims to land and rights thereon. During April in head-quarters (Cuddalore) six days; the rest of the month in camp.

May.—Up to 10th May I was chiefly engaged in visiting jungles surrounding the cusbah, three to six miles distant; also inspected Cavatymallay and Trinomallay hill forest improvements (pruning and clearing saplings of Blackwood, Vengai, Nummai, and Satin). I arrived at Chengum depôt on the 11th, inspected Rajacooppummallay *en route*; on the 14th camped at Singarapet near the boundary; on the 15th proceeded to Tripatore relative to the forest boundary on the Javadi hills and the departmental felling contractor's operations on that range; on the 16th returned to Annandavady reserve, inspected it, and arrived at Chengum depôt again on the 17th; on the 18th visited Moodanai reserve, and selected new nursery sites; on the 19th proceeded to Chinnasamudrum reserve, and examined the pruning, fencing, and nurseries; on the 21st started for Thanemallay, reached Bundrave on the 22nd, remained on the hills four days, visited all the villages, encouraged the Malliallies to collect minor forest-produce, fruits, etc., and bring to depôts for sale; observed a considerable number of Sandalwood trees nearly ripe; on the 26th again camped in Chengum depôt, remained there till 29th; on the evening of 29th camped at Dandampet, went to Tripatore next day, returned to Arasangany forests the following (the 31st) morning, found it necessary to curtail the free felling which had been considerable there of late. In camp all this month.

June.—On the 1st June arrived at Chengum from Arasangany and Dandampet, remained in camp there till the 5th; on the 5th I started for Raventapaudy and the hills adjacent, these being the connecting links between the Javadi and the Checkady hills. Many people applied for free passes. Some applications I rejected as jungle grew in abundance quite near their houses, and they could easily remove all they wanted on head-loads (for which no passes are necessary); others were issued in due course later in the month. I observed considerable damage had been done by cattle-herds and charcoal burners to young Satin, Karungali, and Vemboo saplings, which are plentiful in the jungle between this village, the Salem frontier road, and the Annandavady reserve. Suffered from jungle fever about this time, and had to keep quiet in camp for a fortnight; meanwhile endeavoured to get through the office-work which, from my constant inspections and rapid travelling, had got into arrears. Trinomallay forests and Gingee reserves were not visited during June; the Chengum forests and plantations requiring all my attention, this being the first attempt at planting up reserves in this division. In camp the whole of this month.

July.—I remained in this division till the 13th July; on the 14th arrived at Trinomallay, for the auction sale of depôt timber was to take place here on the 15th and 16th; on the 17th I again

went to Chengum depôt to attend the auction sale there held on the 17th and 18th ; on the 18th, as the bidding was slack, I stopped the sale and proceeded to the village of Poodoopolliem on the North Arcot frontier to inspect some bandy-loads of smuggled timber making a detour towards the Thanemallay and returned to Chengum depôt through the Moodanai reserve. From the 19th to the end of the month, with the exception of the 22nd when I visited Tindevanum to see the Collector, I remained in camp near the Gingee reserves, daily visiting them in succession, and pushed on the planting operations to the utmost. In camp the whole of this month.

August.—Till the 27th August I confined my inspections to superintending the planting operations in the Gingee reserves. On the 27th proceeded to Tindevanum, and from thence to Mercanum on the coast, which place I reached on the 31st. In camp all this month.

September.—On the 1st September I inspected Casuarina plantations at Mercanum with the Collector, and reached Tindevanum again on the 2nd, inspecting the Alathoor jungle on the way with a view to proposing it for a reserve ; on the 4th started for Trivanellore to open a fuel plantation in the bed of the Mullatar (preparatory to this a nursery had already been raised in the village near), and reached Vickravandy, camped there on the 5th, and inspected waste land at 80th mile (Madras road) ; on the 6th camped on the banks of the Pooniar, the river being in flood, and reached Trivanellore on the 7th ; commenced operations on the 8th, and remained in camp at Trivanellore, superintending plantation work for the rest of the month, excepting two days when I went to see the Collector on official matters at Villapuram. During these two days I inspected a large tope in the town (Nabob's), and went to a large tract of scrub jungle suited for a reserve, situated four miles from it. In camp all this month.

October.—Till the 2nd October I stayed at Mullatar plantation ; then struck tents, reached Trikalore on the 3rd, and camped at Agaram, four miles to the north of it, inspecting land for future plantation ; on the 4th arrived at Trinomallay depôt, inspected timber stored there, then proceeded to Patchel, camped there the night of the 5th ; on the 6th camped in Chinnasamudrum reserve, visiting Chengum depôt in passing ; on the 7th went through new plantations in this reserve ; on the 8th broke up camp and went across the hill to Moodanai, inspected that and returned to the depôt ; on the 9th left again for Trinomallay, made no stay, but kept straight on for Gingee reserves ; camped at Gingee for a week and inspected planting and fencing operations lately completed ; on the 20th arrived at Tindevanum, remained here, inspecting local conservancy village topes till 22nd ; I then left for the Mullatar plantations remaining till 27th ; left on that morning for Cuddalore where I arrived on the 28th. In camp twenty-seven days of this month, four days in head-quarters (Cuddalore).

November.—In early part of November went over the large Casuarina plantations near the Huzoor lying along the coast with the Collector, and formally took charge on the 5th. Throughout this month, excepting two short trips,—one to the Mullatar plantation near Trivanellore, the other to inspect the waste land to the north of Pondicherry for future Casuarina plantations,—I remained at head-quarters, superintending the new felling (thinning out), lopping, pruning, and making new nurseries for proposed extensions for 1873-74 on the four plantations taken charge of in the early part of the month, and in estimating the value and quantity of timber on them ; settling market-rate for sales from them, forming depôts, etc., etc., ; on the 27th left for Trikalore anicut, where I arrived on the 29th, visiting Mullatar plantations and Punrooty nursery and tope on the way ; 30th on anicut plantation, superintending new operations which were only commenced the latter end of November 1872. During this month I was in head-quarters for twenty days and in camp ten days.

December.—In December till the 3rd in camp near Trikalore plantation, returned again to head-quarters, and remained there from the 4th to the 15th engaged in preparing Jungle Conservancy Supplemental Budget-estimate for 1873-74, holding auction sales of wood, and generally attending to the supervision of the plantations on the coast ; on the 16th I started for Vanoor ; on the 17th for Gingee ; on the 18th camped at the reserves and paid the coolies and conservancy establishment, met the Acting Forester here, and gave instructions regarding range matters ; on the 19th reached Trinomallay and inspected the depôt and timbers therein ; on the 20th visited

hill reserve and inspected conservancy operations (clearing out and pruning the hardwood saplings before mentioned), which were to be stopped this month; on the 21st arrived at Chengum depôt; and on the 22nd camped at Dandampet after inspecting Chengum plantations, the depôt registers, and re-piling timber (stock in hand). In head-quarters twelve days this month; in camp the rest.

January.—On the 4th January camped at Muddikerry after being away from the district with leave during Christmas holidays; on the 5th proceeded to inspect Annandavady reserve; on the 6th to Chinnasamudrum reserve; on the 7th to Chengum depôt; on the 8th to Moodanai reserve; on the 9th camped at Patchel; on the 10th inspected Trinomallay depôt; on the 11th camped at Vatavalum; and looked at Gungavarum fuel reserve (not marked out up to this time); 12th camped at Villapuram; 13th Nellicooppum; 14th Cuddalore (head-quarters). I proceeded thus rapidly as I was suffering from a severe attack of jungle fever, which first came on, on the 8th, and I required medical advice; was laid up till 20th. On this day I visited Shonangcooppum plantation, but found I had not recovered enough for out-door work, remained in Office on 21st. On 22nd attempted to inspect Davanapatnam plantation, but knocked up, heat of the sun being almost unbearable. For the next week or till 29th I was unable to do much on inspections, only going to the coast plantations twice in that time. On the 29th I proceeded to Punrooty nursery, felt very unwell; but on 30th left for Mullatar plantations, reaching Trivanellore that evening. 31st inspected Mullatar plantations, and went on to the anicut (plantation), ten miles further, in the evening. In head-quarters fourteen days this month; in camp the rest.

February.—On the 1st February at (Trikalore) anicut plantation, paid arrears of wages due to coolies employed on up-keep of plantings on channel-banks and tank-bunds in Trikalore Taluq, lately taken over from Public Works Department. 2nd was Sunday. 3rd inspected the Tamarind trees planted on seven tank-bunds; 4th inspected eight miles of planting on channel-banks; on 5th returned to Mullatar plantation in the evening, after attending to some planting out of jack trees and Kat-valai at the anicut plantation in the morning, and visiting Yedayar nursery on the way. From 6th to 12th on the Mullatar plantation, instructing new Head Maistry in the work, going over Roll Books, Labour Reports, etc. I had found it necessary to dismiss the former Head Maistry for errors (?) in his Nominal Rolls and Labour Registers. On 12th proceeded to inspect Gramam nursery, four miles distant. 13th, 14th, and 15th camped on the plantation, and settled the pitting contractor's claims for 60,000 pits he had dug after counting them. All through this period had been in bad health. On the night of the 15th I started for Punrooty; 17th reached head-quarters; 18th despatched timber specimens to Madras; and until 24th kept at Office-work. On 25th inspected Fort St. David, and Shonangcooppum plantation; on 26th inspected Tarlancodah and Arundel plantations; the remainder of the month at Office. During this month ten days in head-quarters, 18 days in camp.

March.—Till 3rd at Office. On the 4th I again inspected operations on the four coast plantations abovenamed; on 5th proceeded to Kudicadoo, six miles distant, to examine waste land for a new plantation, and inspected two small topes of Casuarina under the Salt Department; 6th inspected the jail plantation (still under my charge); 7th surveyed backwater channels from Tarlancodah plantation to the market, in view to proposing to deepen them in some places and to make new cuttings, in others to shorten the way by water-transit for delivery of timber and fuel to market; 8th left this morning for the Trikalore plantations, arrived at anicut plantation on the 10th, paid the people, then inspected the work, and in the evening returned to Mullatar plantation near Trivanellore, where I camped for the night; 11th inspected plantation work and paid coolies; 12th inspected five nurseries raised for new operations in succeeding year; 13th on plantation and inspected Curryvalum trees growing in profusion in the water-spread of Yemapoor tank, and tapped them for gum; 14th started for head-quarters which I reached on the morning of the 15th, having inspected Punrooty nursery and superintended the lopping and pruning of the trees there on the way; 17th marked out limit for canal cutting on the Shonangcooppum plantation, and visited Cappermallay, the Virdachellum side of

which plateau is covered for a considerable extent with scrub jungle ; 18th inspected Davanampatnam and Tarlancodah plantations ; 19th at Jail plantation, superintending water channel cutting ; 20th again at the cutting, and afterwards through the Shonangcooppum plantation and over the work ; 21st left head-quarters for Poongavanum tope ; 22nd left again for Mullatar plantation, paid wages there, and in the evening rode on to Villapuram ; 23rd at Villapuram, leaving in the evening for Muttitoor ; 24th reached my camp at Gingee reserves from Muttitoor, and inspected plantations in Mootacadoo reserve ; 25th inspected Mailchary, Siroovady, and Chuckler's droog plantation, and went through the three reserves of Cottamangalum, Siroovady, and Mootacadoo ; 26th remained in camp checking Roll Books and Maistries' Registers, and arranged for paying the next morning ; 27th no money had arrived, so I inspected Periamoor and Padepallum reserves and plantations,—a very long inspection, out the whole day at it. 28th paid wages, and in the evening struck tents and moved down four miles to the Gingee bungalow ; 29th left for head-quarters, reached Vanoor that night ; 30th reached Cuddalore via Pondicherry ; 31st inspected Shonangcooppum plantation work. During March fourteen days in head-quarters and seventeen days in camp.

Throughout the year 285 days in camp, and 80 days in head-quarters ; total 365.

SECTION II.

A.—Reserved Forests.—There are no totally reserved forests in the district. All the better sorts of timber trees are, however, reserved for departmental felling. The operations undertaken during the year were clearing away from Teak, Sandal, Vengai, Nummai, Maruthey, Satin, and Blackwood saplings tangled undergrowth and creepers ; trimming them, and, in some cases where more exposed to injury from fire or cattle, mamootying the earth around and fencing them. The number of young trees thus treated were 17,842 in the forests on the Trinomallay, Cavatymallay, Thanemallay, and Checkadivulsaymallay. The cost of these operations was Rs. 100-1-6, of which sum Rs. 87-9-6 appear in the accounts for the year. Besides this work 196 maunds of green gallnuts and 55 lbs. of gums were collected at a cost of Rs. 49-9-0. In the reserve timber operations only 813 cubic feet of Vengai, Nim, Maruthey, Satinwood, Acha, etc., were brought to market depôts, at a cost of Rs. 174-6-3 for felling and Rs. 150-11-1 for carting, out of 1,614 cubic feet, the total felled in forests. The charges on balance remaining in forests are not passed in my accounts under the conditions of agreement with woodmen, till it is brought out to carting places. Felling operations were much checked by the feverishness of the jungles. 840 maunds of Vel-valum bark and 33,400 maunds of Avarum bark were collected and removed from forests and jungles by purchasers themselves ; there was, therefore, no outlay of Government money for the item. Similar operations are proposed in next year.

Sub-Division B. *Fuel Reserves.*—Of these,—there are ten in number, all which have been supported from the forest allotment,—four of them are termed local fuel, and the rest railway fuel reserves. Five are in Trinomally Taluq, and five in Gingee Division, Tindevanum Taluq. The result of operations in the year is as follows :—

Trinomallay Taluq. *Moodanai Reserve (Local).*—Estimated area 4,000 acres. 4,503 pits dug, 5,099 trees planted in new ground, 1,556 plants established in pots for supplying casualties ; 1,748 casualties reported, of those 1,180 were re-placed ; ten cawnies of land were ploughed up and seeds sown broadcast (this experiment was not very successful) ; 10,366 yards of bush fencing were set up ; several maunds of seeds sown in patches in the jungle germinated well. The expenditure by accounts for this reserve, including Maistries, was Rs. 220-2-2.

Chinnasamudrum Reserve (Local).—On this reserve, which is estimated to be 400 acres in extent, 18,307 pits were dug, 14,942 young trees were planted, 456 trees were established in pots for supplying casualties ; 680 casualties were reported, 700 of these were supplied, and 4,475 yards of bush fencing built. The expenditure was Rs. 398-13-10.

Peringalathoor Reserve (Local).—Area 4,800 acres. The only work carried on in this reserve was 885 yards of ordinary jungle fencing, which I commenced in October, but had to stop for want of funds. The expenditure was Rs. 5-4-0.

Annandavady Reserve (local).—Area 1,280 acres. Nothing more than patrolling the jungle was attempted to be done in this reserve. No expenditure.

Gungavarum Reserve (Railway).—Area 8 square miles. This reserve was proposed to be made in June, was thoroughly inspected. Issue of licenses for felling within certain limits stopped, and a peon placed on the spot. The demarcation of boundary has not taken place yet. No expenditure for it. The total number of young trees planted, including supplies in Trinomallay Taluq reserves *from nurseries* during the year, was therefore 21,921.

GINGEE DIVISION. *Mootacadoo Reserve (Railway).*—Estimated area 2,500 acres. Planting operations in this reserve were commenced in June 1871. On this tract during the year under review 22,884 new pits were dug, 26,220 trees were planted out, open pits from last year's work being available in addition, 1,000 trees established in pots for supplying; 1,848 casualties were reported which were all re-placed; 3,204 yards of bush-fencing completed; 28 acres of jungle were cleared out. Jungle tree seeds were collected and sown broadcast in large quantities. Among the rest I determined to try to grow bamboos, of which 105 Madras measures were sown in patches in prepared ground throughout all the reserves; these as well as Acha, Vengai, and Maruthy seeds sown in same manner have proved fairly successful. The expenditure was Rs. 544-6-4.

Padepallum Reserve (Railway).—Area 2,500 acres. A few pits were dug, a nursery formed, and some yards of fencing raised on this tract at the end of 1871. But during this year 13,973 pits were dug, 11,373 plants put out, 500 trees established in pots for supplying casualties, 447 casualties reported, of which 284 were re-placed, 1,944 yards of fencing was made, 19 acres of land cleared. The expenditure was Rs. 459-4-2.

Periamoor Reserve (Railway).—Area 3,480 acres. This would become a very valuable reserve if the Pakkummallay were added to it. Supplemental planting operations were commenced this year. The quantity of the principal works taken in hand were 15,032 pits dug, 16,735 young trees were planted (a small portion of this total was dibbled in with an iron bar without pitting as an experiment); 362 casualties were reported, of which 162 were re-placed; 1,666 yards of bush fencing completed, and 22 cawnies of land cleared for pitting. The expenditure was Rs. 455-8-7.

Siroovady Reserve (Railway).—Area 710 acres. Planting operations commenced this year. A very compact tract of jungle surrounded on three sides by hills; water rather deficient, for a large tank formerly existed within the boundary but the bund breached, and there has been no store of water for several years. I propose to repair this bund roughly. The principal operations during the year were 15,171 pits dug, 11,192 plants put down, some of which were dibbled in as described in the former reserve, 177 plants established in pots for re-placing casualties; 366 casualties reported, of them 306 were re-planted; and 2,624 yards of bush fencing were made. The expenditure was Rs. 327-10-9.

Cottamangalum Reserve (Railway).—Area 2,000 acres. Planting commenced here this year also. During 1872-73, 12,750 pits were dug, 8,534 plants put out, and 2,221 yards of fencing made; 358 casualties occurred; none were re-placed. About 18 cawnies cleared. The total of young trees planted out during the year for all these reserves is 76,242.

SUB-DIVISION C. *Plantations.*—Under this heading are three small concerns; they are *Chengum experimental plantation and nursery* situated near the village of that name and close to the forest depôt on the banks of the Cheyar, commenced and kept up chiefly as a school to teach the subordinate conservancy and reserve establishments. I have succeeded in rearing 28 sorts of forest and avenue trees on this land, in area about 3 acres. The operations during the year were 328 new pits dug, 1,180 young trees planted (open pits remaining from last year's work), 1,880 trees established in pots for supplying casualties or the ryots; 490 casualties occurred in the year, 1,290 were re-placed (last year's casualties not having been re planted in that year); 901 yards of fencing were repaired and 10½ chains of channelling dug and sown. The expenditure on this was Rs. 159-8-9.

Chengum Anicut Plantation.—About 3 miles from the former, area 13 acres, on which 2,475 pits were dug. 2,160 Casuarina trees planted, 207 yards of fencing made, and 30 chains

of channelling dug and sown; 400 casualties occurred, 100 were re-planted (with Casuarina), and bamboo seed was sown around the boundaries of the block; this seed, however, did not germinate well. The expenditure was Rupees 19-10-0.

Trinomallay Timber Yard Planting.—The trees planted in 1871, numbering 246, are chiefly Kat-valai, Nim, Illuppey, Tamarind, and Nagai, and they are growing remarkably well. Many of them are 14 feet high. One Kat-valai, over 17 feet, was broken short off 8 feet from the ground in a gale of wind. Besides this, there was only one casualty, to which a plant was again supplied. The work performed here was watering and staking living trees, and digging 230 yards of channelling along the fence in which Kuruckapulli has been grown, and is now about 2 feet high. The expenditure was Rupees 17-2-0. Total young trees planted in the year on these plantations 4,738. The total expenditure for planting and conservancy operations on reserves and plantations in the year 1872-73, as per bills forwarded, amounts to Rupees 2,791-13-11; but the actual cost (incurred expenditure) for the whole of the above work, which has been taken out of labour reports up to the end of March 1873, was Rupees 3,458-6-5, for a sum of Rupees 964-5-10 due for work performed could not be disbursed, the allotment for the year being already expended, and a sum of Rupees 22-13-4 were arrears due for 1871-72 and paid in 1872-73. Before closing this section, I would submit that, considering the nature of the soil, scarcity of water during the dry season, and the difficulty of preventing cattle trespass, not only has this work been cheaply done, but that the results are favourable; for to sum up all the operations in round numbers 103,000 young trees were planted out from nurseries, of which 96,000 might be said to be established "in field" at the close of the year, 10,000 old trees of the previous year's planting, and several nurseries were kept up, tools purchased, water holes deepend or dug, 16 miles of bush fencing set, 10 cawnies of land ploughed forty-two chains of channelling dug, and about 700 measures of different seed collected and sown for a cost of Rupees 3,458. The proposed operations under this section are keeping up existing plantations, supplying the failures, planting out a few thousand Teak and Sandalwood in fresh ground, thinning out the undergrowth on reserves, cutting "rides" throughout them for facilitating conservancy and inspections, building substantial huts for watchmen, leasing out the right to collect fruits, barks, etc.

SECTION III.

License and Voucher Forests.—All forests and jungles under Imperial conservancy in this district are open to license felling under certain restrictions, viz., no reserved timber can be felled on licenses, and certain jungles are periodically closed to all licenses for felling and allowed to rest, and no felling is permitted in the foregoing fuel reserves. The operations, that is, removals from the forests during this year under license and voucher system, have been 12,963 cubic feet of jungle timber, 1,335 bandy-loads of bamboos, 181 tons 6 cwt. 108 lbs. of firewood and charcoal, 34,240 maunds minor produce. The expenditure has been *nil*, but the pay of the subordinate conservancy establishment (Rangers and Thannadars) should perhaps be debited to this item. Under the free passes system the removals were 7,010 cubic feet of junglewood and reserved timber combined, the royalty on which would have been Rupees 554-4-0; 133 bandy-loads of bamboos, royalty Rupees 118-13-0; 191 tons 10 cwt. 40 lbs. of firewood, royalty Rupees 29, giving a total royalty not realized on free pass removals of Rupees 1,102-1-0.

SECTION IV.

Yield of Forests.—The total yield of forests on all heads, including confiscations during 1872-73, has been 21,944 cubic feet of timber, 1,468 bandy-loads of bamboos, 375 tons 15 cwt. 90 lbs of fuel, 34,518½ maunds of minor produce. The total expenditure on felling was Rupees 174-6-3, and carting Rupees 154-11-1, and depôt charges Rupees 184-4-4. Total timber expenses Rupees 509-5-8.

SECTION V.

Financial Results.—The receipts from all sources of forest revenue were Rupees 4,100-0-9, while the working and conservancy charges, including salary and allowance of executive establishment and office contingencies as per accounts rendered, were Rupees 9,784-13 4, which

leaves a sum of Rupees 5,684-12-7 against the forests. Of the working charges Rupees 2,791-13-11, as above stated, were expended on planting operations, but the allotment for working the forest for the year under review was Rupees 3,000 only, and it was found to be insufficient to clear off the whole expenditure incurred; it becomes evident that if the supplemental planting operations in reserves are to be continued, the allotment must be largely increased; and in that case for a period of several years there must be a considerable annual deficit against the forest. In the two years I have been in charge, the revenue has not increased with the expenditure; this is to be acounted for by planting operations not being immediately remunerative. Any expenditure on felling operations alone would well re-pay the outlay even in *these* forests, which can only be termed second rate. There is Sandalwood now fit to be cut on the Thanemallay and the south-eastern slopes of the Javadimallay, and collecting this would certainly give a fillip to the revenue; but my doing this would, I imagine, cause objectionable departmental disputes as to right to fell and as to the forest boundary on the Javadi hills between Salem and North and South Arcot, which, I believe, has never been finally settled or marked. I only mention it now, as it is a question which somewhat affects the revenue of these forests; and for this reason, now that there is a larger expenditure required in South Arcot than formerly when it was combined with Salem forests, perhaps it would be better if the forest boundary was finally settled one way or the other.

SECTION VI.

General Remarks.—During the year confiscations amounted to 357 cubic feet of timber, 80 maunds of bark, 5 tons 18 cwt. 54 lbs of fuel. The gross amount realized on these sales was Rupees 122-4-9; the amount of contingent expenses to be deducted therefrom was Rupees 41-13-7, leaving a net sum of Rupees 80-7-2 which was credited to forests. The offences tried before the Magistrate were few and unimportant, viz., four in Trinomallay Taluq and same in Gingee Division. Of these cases only three obtained conviction, others released. With the small establishment of peons available, I found it against the interest of conservancy to prosecute before the Sub-Magistrates cases in which they were witnesses, and generally decided the matter departmentally by confiscating the illegal removals. The amount of timber supplied to Public Works Department was 115 cubic feet; for this cash payments were made; consequently has been included with ordinary depôt sales. The new works under forest conservancy undertaken in the year were Chengum anicut plantations commenced in October 1872 Gungavarum reserve conservancy; commenced in June 1871 Padepallum reserve plantations, Periamoor ditto, Siroovady ditto, Cottamangalum ditto, and Peringalathoor reserve conservancy; and since the 1st October 1872 (the re-organization of the department) two large local conservancy plantations were formed under my charge in Trikalore Taluq; four plantations on the coast were taken over, besides several detached topes and nurseries, channel-bank and tank-bund plantings; sites were selected for large local conservancy plantations to be carried on in the ensuing year under supervision of the forest officer. The health of the establishment has been wretched throughout the year. Forest peons had to leave their duty constantly from fevers; the forester was ill for months, and had to take sick leave (this officer has since died); the gumastahs in charge of depôts had to be repeatedly changed; fever and diarrhœa preventing them from doing their duty. Felling operations were checked by wood-cutters objecting* to stay in the fever jungles, as they termed them, for any length of time. Two peons were permitted to resign; they† were so emaciated and weak from attacks of fever. The pygust was reduced two grades for not reporting himself until after two months had elapsed beyond the date given him, he having been sent on special duty to forests (to collect specimens for the Vienna Exhibition), and one gumastah was suspended for two months for neglect of duty; otherwise the conduct of the whole subordinate establishment was fair. The old timber shed at Chengum depôt fell down, and a plot of land was taken over in January 1873 for forming a new timber depôt at Tindevanum. The total casualties reported as occurring in plantations during the year was 6,702, but I am of

* The seigniorage fees are also lower in this year from same cause.

† One man has not recovered to this day.

opinion that a larger number must have occurred, particularly during the last quarter of 1872-73. The largest trees of the planting of 1871 at Gingee reserves run from 10 to 20 feet in height, and are about 2 inches in diameter at base; the largest are *Acacia speciosa* (Kat-valai) and *Cassia fistula* (Mile-konne); the latter I find act admirably as nurses to the slower growing trees. Sanction was received in August 1872 for the establishment of two *gumastahs*, at 12 Rupees each per month, for the Deputy-Conservator's Office; this, though quite inadequate now to the wants of this office, was a great assistance to me then, for up to that time I could only occasionally obtain the services of the Overseer's (now forester) gumastah, there being only one other person in all the conservancy establishment in this district, namely, a timber depôt gumastah who was at all fitted for such work. I have made several applications for an increased office and conservancy establishment, and even on this occasion beg to urge the necessity of the measure.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) H. L. WOOLDRIDGE,
Deputy-Conservator of Forests.

AGUSTIARPULLEY, TRITRAPOONDY,
10th July 1873.

No. 243.

From

The Hon. D. ARBUTHNOTT,
Collector of Tanjore,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—Adverting to the Proceedings of the Board of Revenue, dated 8th May last, No. 746, (Forest No. 21), calling for a report on the administration of forests for 1872-73, I have the honour to state that the Forest Establishment was working in this district only from October 1872 to February 1873. During this short period nothing was done by the Forest Department beyond selecting two sites for plantations in the villages of Naduvur and Kollangarai near Tanjore, planting varieties of seeds, and forming seed and nursery-beds. These sites are Government waste lands situated within ten miles of the railway, and the soil is red and sandy and fit for raising trees for fuel.

2. The Forest Establishment consisted of—

An Overseer, at Rupees 130 per mensem (including fixed batta).

A Gumastah, at Rupees 12, and two Peons, at 7 Rupees each per mensem.

3. This was, however, in communication with my predecessor, Mr. Cadell, withdrawn by the Inspector of Forests at the end of February 1873, as reported in my letters noted in the margin.

No. 124, dated 8th April 1873;
,, 232, ,, 1st July ,,

In order, therefore, to supervise the fuel reserves that were formed in the villages of Naduvur and Kollangarai, a Maistry was appointed, with the sanction* of the Board, on a salary of Rupees 15 per mensem, to be paid from the Jungle Conservancy Fund. The services of the Maistry have been placed under the immediate superintendence of the Deputy-Tahsildar of Vullum. No effort is being spared to maintain and improve these jungle plantations, and the seedlings and nursery-beds are reported to be in a thriving condition.

* *Vide* Board's Proceedings, dated 3rd May 1873, Miscellaneous Forest No. 91-2,683.

4. Considering the short period during which the Forest Establishment was at work, I have not called for any report from the forest officer, as required in paragraph 3 of the Proceedings

under reference. I beg, however, to annex a memorandum showing the charges incurred on account of the Forest Department during the year under report :—

—	Permanent Establishment.	Temporary Establishment.	Contingent.	Total.
			RS. A. P.	RS. A. P.
1872, October	142	...	54 10 0	196 10 0
,, November ...	142	...	9 14 6	151 14 6
,, December ...	142	...	53 1 9	195 1 9
1873, January	142	20	27 0 10	189 0 10
,, February ...	142	20	28 2 0	190 2 0
Total...	710	40	172 13 1	922 13 1

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) D. ARBUTHNOTT,
Collector.

No. 94.

OFFICIAL MEMORANDUM.

THE Collector of Trichinopoly has the honour, with reference to the Board's Proceedings, Forest No. 21, of the 8th instant, to forward the accompanying copy of the report furnished by Mr. Morgan, Deputy Conservator, now on leave, on the administration of Forests in this district during the past official year 1872-73, together with a copy of his own remarks thereon. He has nothing further to add at present on the subject.

TRICHINOPOLY,
28th May 1873.

(Signed) J. B. PENNINGTON,
Acting Collector and Conservator.

To the Secretary to the Board of Revenue.

[ENCLOSURE 1.]

OFFICE OF DEPUTY CONSERVATOR OF FORESTS,
TRICHINOPOLY, *7th April* 1873.

From

R. W. MORGAN, ESQ.,
Deputy Conservator of Forests, Trichinopoly and Tanjore.

To

J. B. PENNINGTON, ESQ.,
Acting Collector and Conservator of Forests, Trichinopoly.

SIR,—I have the honour to submit the Annual Administration Report for the Trichinopoly and Tanjore Plantations, with the usual accounts accompanying, for the official year 1872-73.

2. I was absent on sick leave at the commencement of the official year. I returned to my Range on the 4th July and was almost immediately transferred to Nelambur. I returned from Nelambur and took over charge of my district on the 4th January from Mr. Hadfield.

3. The plantations, five in number, viz., Elamanore, Kulitalai, Talapetai, Chithalavai, and Kutlai, were repeatedly visited by me. I also made a tour through my district and carefully inspected the whole of the Putchamullays. The Negapatam Plantation (abandoned as unsuitable by Lieutenant Williams) in the Tanjore District was also visited and arrangements made with

Mr. Betts, Agent and Traffic Manager, for a supply of railway fuel. Several blocks in the Tanjore District and at Nungapoorum, in the Trichinopoly District, were inspected, and arrangements for obtaining the blocks in the Trichinopoly District are being made.

A.—Plantations of the Trichinopoly District.

No. I., Elamanore.—Almost the whole of this block has been planted up. 69,160 pits were dug and planted with different sorts of plants, viz., Casuarina, Inga dulcis, Acacia Arabica, Albizzia Lebbek, Acacia leneoplia, and Acacia amara. 18,582 casualties were replaced with different plants, and 694 beds were formed and sown with different seeds. 4,103 lineal yards of permanent fence and 1,710 yards of temporary fence were constructed; four wells were sunk and completed with the erection of pecotta, &c., and one store-hut was built; 349 measures of different seeds were collected; 100 plants placed in baskets were supplied to the Central Jail; 236 pits were dug and kept ready.

The Casuarinas planted in a stiff clay soil, and the Acacia amara planted in a wet sandy soil, as might have been expected, all proved failures; the rest of the plants in the block are in a thriving condition, some of the Casuarinas (two years old) being fifteen feet high with a diameter of 3½ inches. The Inga dulcis is also in a most thriving state (some being fifteen feet in height with a diameter of four inches). There have been a great number of failures owing to the heavy floods, which covered the plants for six or eight days and from three to four feet deep. The expenditure of this plantation is Rupees 2,400-13-8 and Rupees 493-5-8 for salaries.

No. II., Kulitalai.—The plants, on the whole, are in a thriving condition, averaging two feet in height. The same difficulty and loss of plants from floods was experienced here as at Elamanore. Thirty-eight acres were felled and 38,610 pits were dug and planted, viz., 650 with Inga dulcis, 700 with Tamarindus Indica, 3,825 with Casuarina, 31,645 with Acacia Arabica, 1,640 with Melia Azaderachta, and 150 with Albizzia Lebbek. 2,200 casualties were replaced with different plants, and 124 beds were formed and sown with different seeds. 3,286 lineal yards of temporary fence and 1,370 yards of permanent fence were finished, and 969 trees were pruned. 189 measures of different seeds were collected. The expenditure of the plantation during the year amounts to Rupees 1,745-10-11, of which Rupees 332-7-10 are the salaries of the establishment.

No. III., Talapetai.—Several of the Babool trees that had reached a fair size were felled, and the cost of felling, lopping, etc., amounted to 6 Annas per cubic yard. This plantation deserves more the title of a fuel reserve than plantation. 27,765 pits were dug and planted with Acacia Arabica and Inga dulcis; of the latter there were only 300 planted. 1,660 casualties were replaced with Acacia Arabica, and 2,821 trees were pruned. 4½ acres of land were cleared, and fifteen beds were formed and sown with different seeds. 437 measures of different seeds were collected. The total expenditure for this plantation has been Rupees 841-14-4, of which Rupees 555-10-3 has been incurred for working charges and Rupees 296-4-1 for salaries.

No. IV., Chithalavai.—This plantation seems to me the best of all our plantations and the one most likely to succeed in a pecuniary point of view. The plants are very regular and average in height two feet. This block was originally open, and we had no thorny jungle to get rid of. 41,706 pits were dug and planted with Acacia Arabica and 7,900 casualties were replaced. 188 beds were formed and sown with Acacia Arabica, and 300 lineal yards of temporary fence and 1,684 of permanent fence were constructed. 191 measures of different seeds were collected. The expenditure on account of working charges is Rupees 738-8-10 and that of establishment Rupees 293-3-7, making a total of Rupees 1,031-12-5.

No. V., Kutlai.—This plantation is very sandy and is only fit for Casuarina. It is four miles from the Railway Station and a mile and a half from the edge of the line. The plants average one foot in height. 21,350 pits were dug; 20,730 were planted with Acacia Arabica, 350 with Casuarina, and 270 with Melia Azaderachta, with the replacing of 13,100 casualties. 332 beds were formed and sown, and 1,330 trees were pruned. 3,700 lineal yards of temporary fence and 3,324 of permanent fence were constructed. Sixty measures of different seeds were collected. Rs. 815-5-3 for working charges and Rupees 278-7-5 for establishment, aggregating Rupees 1,093-12-8, are the charges of the plantation during the year under report.

License and Voucher Forests.—As mentioned in a former portion of my report, the whole of the Putchamullays have been thoroughly explored and a report on them communicated to you (*vide* letter, No. 253, dated 5th February last).

Financial Result.—Rupees 394-4-0 by the sale of brushwood removed from the plantations at Elamanore and Kulitalai, and Rupees 20-12-0 by the sale of minor forest produce at the former plantation, and Rupees 74-2-0 by miscellaneous receipts at Elamanore, Kulitalai, and Chithalavai Plantations, aggregating a sum of Rupees 489-2-0, was realized during the current year.

General Remarks.—The above five plantations were watered throughout the year except during the rainy season ; there was also weeding, reclearing, cutting creepers, and thinning the nurseries as many times as requisite. A great mass of prickly-pear has been cleared from the Cutlay and Chithalavai Plantations.

Fencing of the Tanimalay Reserve at Manaparay has been repaired at a cost of Rs. 198-4-0, and the cost of supervision amounted to Rupees 341-6-6.

An Overseer of the Madura Range has been paid from this Treasury up to the amount of Rupees 550 in this year.

A Sub or Assistant Overseer is requisite for the Trichinopoly Plantations and Reserves, and he ought to be allowed a free pass on the railway, or mileage. There is now a Maistry, Maria Pillay, who does the duty of the above-mentioned grade, and a Maistry, Soondrum Iyer, who acts as Writer. There is no Writer attached to the Range although there is work enough for one.

The total charge of the district amounts to Rupees 15,041-11-7, as particularized below while the revenue is but Rupees 489-2-0, showing a deficit of Rupees 14,552-9-7 :—

	RS.	A.	P.
The expenditure on account of different Plantations	6,363	3	9
Pay and travelling allowance of the Establishment under Working Charges	1,255	13	7
Mileage of the Establishment under Working Charges	437	15	0
Miscellaneous	128	7	3
Total ...	8,185	7	7

Health of the Establishment.—Good.

Conduct of the Subordinates.—Good on the whole, with the exception of one, Ramasawmy Naidoo, Maistry, who was dismissed for taking bribes.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) R. W. MORGAN,
Deputy Conservator of Forests.

[ENCLOSURE 2.]

Proceedings of the Acting Collector and Conservator of Forests, Trichinopoly, under date the 8th May 1873.

Read report from the Deputy Conservator of Forests, Trichinopoly.

IN future the Deputy Conservator will submit a statement showing the *total* expenditure on each plantation up to date *including the cost of all establishment rateably*, except that of the Deputy Conservator himself, and the cost of *each tree* planted, up to date.

2. Every effort must be made to complete the *permanent* fencing of each plantation.

3. Casuarinas should never be planted in any but the lightest soil, and care should be taken not to put down plants of any kind till the first heavy freshes are over.

4. In the absence of a Deputy Conservator the Head Assistant Collector will be requested to send in a weekly statement showing the progress made in felling the Talpet padugay.

5. The report on the Putchamullays will be disposed of separately.

6. The question of the payment of the Madura Overseer is still under discussion, as is the question of establishment to be employed. In future the accounts of the department will generally be kept in the Collector's office and all salaries will be paid at the Taluq Treasuries, coolies only being paid by the Deputy Conservator, whose duty will thus be confined to inspection and actual conservancy work.

(Signed) J. B. PENNINGTON,
Acting Collector and Conservator of Forests.

MADURA COLLECTOR'S OFFICE,
CAMP DINDIGUL, *4th August* 1872.

No. 251.

From

W. McQUHAE, ESQ.,
Collector of Madura,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to submit the report of the Deputy Conservator of Forests on the administration of Madura Forests during the year 1872-73, with Statements A to E, prepared in the prescribed forms.

2. The receipts from forest during the year amounted to Rupees 16,010, and the expenditure to Rupees 20,006, leaving a deficit of Rupees 3,996. The income of the year exceeded that of the preceding year by Rupees 1,353, and including the difference of value of stock in hand, the year's operations resulted in a small surplus.

Expenditure.	Receipts.	Difference in value of stock.	Surplus.
RS. 20,006	RS. 16,010	RS. + 3,998	2

3. The expenditure exceeds that of the preceding year by Rupees 8,005 in consequence of more extended operations chiefly under the heads "Timber expenses" and "Plantations." During the preceding year the Deputy Conservator drew no allowance in Madura, and this accounts for a difference of Rupees 2,380. No expenditure was incurred on Fuel Reserves during the preceding year, while in the year under report the expenditure on them was Rupees 1,074.

4. Fuel Reserves near the Railway were selected, fenced, and conserved during the year, and the Teak plantations in Periacolam and Pulney Taluqs were extended. A considerable number of Australian trees were also planted on the Pulney Hills. The subject of free felling, about which so much has been written in previous years, has received much consideration. The difficulties connected with this point are confined almost entirely to the Periacolam Taluq, where the ryots have always been accustomed to obtain a very liberal supply of wood without payment.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) W. McQUHAE,
Collector.

[Enclosure 1.]

Office of Deputy Conservator of Forests,
Madura, 16*th June* 1873.

From

R. WILLIAMS, Esq.,
Deputy Conservator of Forests, Madura.

To

W. McQUHAE, Esq.,
Collector of Madura.

Sir,—I have the honour to submit the Administration Report of the Madura Forests for the Official year 1872-73.

SECTION I.

2. *Inspection tours of the Officer in charge.*—During a greater part of the year I was engaged in inspecting the different plantations in the Trichinopoly District, and in selecting and reporting upon sites for plantations both in Trichinopoly and Tanjore, but of the charge of both of these districts I was relieved in January last, as stated in the Proceedings of Government, No. 1,186, dated 9th August 1872. I spent 3½ months in inspecting the different forests, the Railway Fuel Reserves, etc., of this district, and I was also obliged to remain in my Head-quarter in aggregate for 3¼ months attending office work, and during March from ill health.

SECTION II.

Reserves.

3. A. *Reserved Forests.—Operations and contemplated, ditto.*—The reserved forests of Periacolam, and Pulney are worked departmentally through Contractors, who fell timber selected by the Officers of the Department, and deliver it at the depôts. The quantity of timber brought to the various depôts of the Periacolam Range during the year under review was 7,716 cubic feet, as shewn in the Statement B appended. In addition to this there are 10,299 cubic feet, valued at Rupees 11,860, were of the old stock remaining on hand at the end of the official year 1871-72. Sales during the year amounted to 3,108 cubic feet, realizing a sum of Rupees. 4,096, as shewn in Statement C appended. A balance of 14,891 cubic feet of timber in hand valued at Rupees 15,858 is shown in Statement D appended.

4. B. *Fuel Reserve—Operations, and contemplated, ditto.*—The Punjunthanghy Hills, Meenakaradu, and part of the Seroomallays are reserved for the supply of fuel to the Great Southern India Railway extension. Of the above, the Seroomallay portion is being demarcated by running a path round it. The Meenakaradu, and Punjunthanghy have been enclosed by fencing. The trees in them look flourishing. The sums expended on the above reserves are as follows:—

Description of reserves.	Expenditure in this year.		Total expenditure including previous year.
	Amount expended for fencing, etc.	Amount for establishments.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Punjunthanghy Hills, and	545 4 0	312 12 0	858 0 0
Meenakaradu			
Seroomallay	.....	216 5 1	216 5 1
Total ...	545 4 0	529 1 1	1,074 5 1

5. C. *Plantation operations, and contemplated, ditto.,—Plantation No. I. Vannathiparai.*—In this plantation 450 pits were dug, and 450 seedlings put out during the year. There

were 2,805 Teak trees at the end of last year planted in 1869-70, 1870-71, and 1871-72. Altogether 3,255 Teak trees are in good condition. There are also 460 young Teak plants in the nursery for transplanting. The expenditure for this plantation during the year amounts to Rupees 278-1-6, and the total from the commencement up to 31st March 1873 to Rupees 1,015-13-1. Out of 3,255 trees, as stated above, twenty trees measure 31 feet in height and have a girth of 12 inches, thirty trees measure 23 feet in height, and 13 inches in girth, fifty trees measure 24 feet in height, and 11 inches in girth, thirty trees measure 20 feet in height and 10 inches in girth, thirty trees measure 13 feet in height, and 7 inches in girth, and 3,095 trees measure below 12 feet in height, and 9 inches in girth, ¼ Acre of Jungle land has also been cleared to extend the planting operations.

6. *Plantation No. II. Kodikanel.*—This plantation has been sub-divided into (A) Acacia and (E) Eucalyptus. One thousand nine hundred and twenty pits have been dug, and 3,657 seedlings, viz., 1,202 Acacia, and 2,455 Eucalyptus planted out during the year. There are now 2,775 Acacia, and 4,255 Eucalyptus trees in the two plantations including the trees planted in 1870-71, 1871-72, and 1872-73. One hundred and forty-five Eucalyptus and Acacia seedlings are ready in the nursery for transplanting. Ninety-four casualties occurred among the Acacias during the year, and 413 among the Eucalyptus. Two hundred and eighty-six of these were attributable to the neglect of the Overseer Rengiah Naidoo, and he has been fined Rupees 10 on this account. The expenditure during the year has been Rupees 555-14-0, and the total from the commencement up to 31st March 1873, Rupees 1,561-5-2. In the Acacia plantation seventy trees in average measure 10½ feet in height, and 7½ inches in girth, twenty trees measure 9¾ feet in height, and 5 inches in girth, fifty trees measure 8¾ feet in height, and 5 inches in girth, and 2,635 trees measure below 7 feet in height, and 3½ inches in girth, and in the Eucalyptus plantation twenty trees in average measure 28½ feet in height, and 14¾ inches in girth, thirty trees measure 26½ feet in height and 13 inches in girth, forty trees measure 21 feet in height, and 9¾ inches in girth, and 4,165 trees measure below 14½ feet in height, and 9¼ inches in girth. Three-quarter acre of Jungle land has been cleared to extend the plantations.

7. *Plantation No. III. Pulney.*—In this plantation 2½ Gulies of jungles have been cleared, 1,000 pits dug, and 1,000 trees planted during the year. There are now 2,112 trees in the plantation planted in 1870-71, 1871-72, and 1872-73. Three tree casualties occurred, and the remaining are in good condition. The expenditure during this year has been Rupees 158-11-0 and the total from the commencement up to 31st March 1873 Rupees 393-7-5. Of 2,112 trees which are in the plantation, as stated above, four trees measure in average 31¼ feet in height, and 12½ inches in girth, ten trees measure 23½ feet in height, and 11½ inches in girth, twenty-two trees measure 23 feet in height, and 10½ inches in girth, thirty-six trees measure 15 feet in height, and 10½ inches in girth, and 2,040 trees measure below 10¾ feet in height, and 7¾ inches in girth. Two hundred and thirty seedlings are also available in the nursery for transplanting. The soil of this plantation seems to be very good. I am therefore inclined to extend it.

SECTION III.

8. *License and voucher forest operations and contemplated, ditto.*—Under this system the out turn of this district has been 44,361 cubic feet of timber sold for Rupees 2,345, 3,234 tons of firewood sold for Rupees 7,246, 732 cart-loads of charcoal sold for Rupees 732, 2,127 bandy-loads of bamboo sold for Rupees 2,214, and under the heading Miscellaneous we realized Rupees 501-11-8, deducting 10 per cent. commission paid to Nattamgars. This leaves as a net result Rupees 16,010. It will be seen that the revenue of this district is increasing year by year.

SECTION IV.

8. *Yield of Forests.—Expenditure on felling and carting, etc.*—A sum of Rupees 10,000 has been sanctioned in the budget on account of these operations, which was found insufficient, and an application was made for an additional sum of Rupees 2,000, and sanctioned—*vide* Board's Proceedings, No. 65-1,788, dated 24th March 1873. Out of the above sums Rupees 10,562 were drawn from the Treasury as an advance, and Rupees 1,313-0-5 included in them on account of the

cash balance (viz., Rupees 89-15-8 in cash and Rupees 1,223-0-9 in outstanding) which was in hand at the end of the official year 1871-72. From the total sum of Rupees 11,875-0-5, a sum of Rupees 10,391-15-9 has been expended in the way of timber felling, etc., as shown in the Statement A. appended, Rupees 7-1-0 being the actual cash in hand at the end of March 1873 were paid into the Treasury as ordered to be done in the Board's Proceedings, Forest No. 7, dated 13th February 1873, and a sum of Rupees 1,475-15-8 remains unaccounted for.

10. *Outstanding advances.*—Under this head little has to be said beyond the statement that there is a sum of Rs. 1,176-14-11 outstanding against the Ayagudi Zemin, which should be adjusted after the recovery of the sale proceeds of timber from Messrs. Campbell & Co. With regard to sundry minor items of advance, they will be adjusted in the course of a month or two.

SECTION V.

11. *Financial Results.*—The financial result of this year is as follows :—

	Amount.	Total.
Expenditure.	RS. A. P.	RS. A. P.
Pay of Establishments	9,117 2 4	
Working charges	10,562 0 0	
Office contingencies	496 13 3	
Total...	.....	20,175 15 7
Receipts.		
Sale of timber from Government Depôts	4,096 2 5	
Seigniorage	11,412 10 6	
Sale of confiscated timber	160 15 6	
Miscellaneous	340 12 2	
Add value of timber in stock	3,998 7 4½	
Total...	.....	20,008 15 11½
Balance against Government...	.....	166 15 7½
Value of timber on hand on the 31st March 1872, as per revised Statement	11,860 7 4	
Add timber felled during the year 1872-73	7,318 3 11	
Add on account of excess rate realized	792 10 8½	19,971 5 11½
Deduct timber sold in 1872-73	4,096 2 5	
Do. the value of cubical contents decreased in the re-measurement of certain timber	16 4 10	4,112 7 3
Balance on hand on the 31st March 1873...	.....	15,858 14 8½

SECTION VI.

12. *General Remarks.*—This district has been formed into two Ranges, viz., Periacolam, and Madura, the former contains the two taluqs of Pulney and Periacolam, and the latter the two taluqs of Madura and Meylur, and a portion in Dindigul Taluq. In last September an arrangement was made by desire of the then Conservator of Forests, in his letter, No. 1,021, dated 2nd March 1872, to grow fuel Reserves in Dindigul Taluq of this district and the Manaparai division of the Trichinopoly District into one Range, with an Overseer for the same. The charge of the Dindigul Taluq was, therefore, separated from the Madura Range. The valuable forests in this district lie only in Periacolam Range, and there also three Plantations have been established, as

mentioned in paragraphs 5, 6 and 7. From the Madura Range large quantities of fuel, and some Junglewood for the erection of thatched roofs were supplied to the town of Madura, and a large Revenue arises from this independently of the timber sales. The Dindigul Range forests, and hills are being reserved for the supply of fuel to the Railway, but little seigniorage has been levied in this taluq.

13. *Conduct of the Overseer and Subordinates, etc.*—Third Class Overseer P. Rungiah Naidoo was in charge of the Periacolam Range during the whole year, except a month when he was on privilege leave. N. Soobbien, Acting 3rd Class Overseer, was in charge of the Madura Range during the whole year, and I am on the whole satisfied with the way he has done his work. Junior A. Appavoo Pillai was transferred from Trichinopoly to Railway Fuel Reserve Range at the end of September 1872 when that Range has been formed, at that time he took a month's leave and in the remaining months of the year, he was in charge of the Range. Some twenty peons and two Sub-Overseers have been temporarily employed since the Allagheri Hills, Munja Mullay and other hills were transferred to the charge of this department, and they are not included in the permanent strength of the establishment. I have applied for sanction for their permanent entertainment, and trust this will be granted.

14. *Health of Establishments.*—Health has been generally good. A peon died in the Periacolam Range. The Establishments in the Manaparai division suffered a great deal from jungle fever.

15. *Detection of Forest Cases.*—One hundred and thirty-nine cases were detected during the year, out of which twenty-four cases were tried and convicted by different Sub-Magistrates. Fines, imprisonment both simple and rigorous, were inflicted, 111 cases were convicted by different village heads, three cases disposed of departmentally by confiscating wood, etc., and one case was discharged by one of the Sub-Magistrates for want of sufficient evidence.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) R. WILLIAMS,
Deputy Conservator of Forests.

HUZUR CUTCHERRY, TINNEVELLY,
5th June 1873.

No. 304.

From

R. K. PUCKLE, ESQ.,
Collector of Tinnevelly,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to forward herewith my report on the administration of the Forest Department of the district during 1872-73.

2. The care of the forests was re-transferred to the Collector in October 1872, and immediate steps were taken to conserve to the best advantage the tract of hill-forest in which the streams on which the prosperity of this district depends take their rise.

1 Copy of Deputy-Conservator's Report.
7 Statements.

3. The flow of the largest of these streams on the hills is at the outside from 20 to 30 miles, but it is about 70 miles on the plains. On the hills these streams yield nothing at all, but

in the plains they yield Government ten lakhs of rupees per annum. If the Government have an annual interest of ten lakhs of rupees in these streams, it may be fairly assumed that the water supply is worth twice that amount to the ryots, and that thirty lakhs per annum is a low estimate of the value of this water supply. Now the net forest revenue is about Rs. 3,400,—a value less trifle as compared with the water supply of even a single village, but on the forest depends this supply, and the very existence of the forest depends on the officers placed in charge. Unfortunately for a series of years the Forest Department made the taxation of charcoal and firewood and the sale of forest-products their principal object, and overlooked the necessity for the strict conservancy of particular tracts for imperial purposes.

4. The forests on which our streams depend were consequently thrown open to charcoal-burners and firewood-cutters. Any one who obtained a license might cut and hack as he pleased, and, of course, he selected the well-timbered banks of the streams. Hundreds of people were let in to strip certain trees of their bark, or dig them up for their roots, or burn or cut them for the honey that might perhaps hang from their boughs, and as much damage was done as could be done under a system that gave full scope for mischief and provided no efficient check. All this I endeavoured to rectify. I selected the particular tract of hill-forest in which our rivers rise, and, marking off spurs and slopes sufficient for the wants of each village at the foot of the hills in the matter of grazing and firewood-cutting, prohibited entry into the black forest above, and placed the conservancy under the control of the Tahsildars of Ambasamudram and Tenkasi, substituting them for the irresponsible Sub-Overseers of the Forest Department, and requiring them to act as the Deputy-Conservator's Lieutenants in this particular tract, and make arrangements with the village-officers for using only the spurs assigned. Thus, along some 30 miles of hill-side we have numerous blocks allotted as the grazing ground and firewood jungle of a dozen villages on the plains, and these village pastures and jungles are watched by village kavalgars, who see that the limits assigned are observed, and who are paid from Jungle Conservancy. The Forest Department is thus free to exercise general control over departmental timber-felling in the forest above, and to make such revenue as can be made from all sources in the 70 miles of hill-forest that need not be specially reserved. Fortunately, the demand for timber is small; the centerings of the Palamcottah and Ambasamudram bridges that have been offered for sale have glutted the market this year, and the Travancore Government and Zemindars easily under-sell us. Thus, there is but little need for felling in the forest at the source of our streams, and if it is borne in mind that departmental felling, hauling, and depôt sale, is a losing transaction, and that the area reserved is in length but one-third of our hill-range, it may be conceded, I think, that it is unnecessary to fell there at all.

5. The system of felling on license is now abandoned throughout the range, except in the case of persons taking out licenses to cut timber for building purposes, and the forest is thus dealt with more tenderly. The licensed search for barks, roots, dyes, fruit, and other forest-products is, I think, objectionable, unless restrained within particular limits, and the charge for each head-load of firewood (cut within or without the limits assigned for firewood-cutting) is, I think, a hardship that should be abolished. Each village at the foot of the hills (the hills themselves are uninhabited) should have its firewood jungle and grazing ground, and in these, under certain restrictions, the villagers should do as they please. I wished to carry out this reform, but as this was the main source of revenue to the Forest Department, I thought it better to wait till the Board should pass general orders.

6. Besides the hill forest reserve, we have fuel reserves scattered about the plains mostly within five miles of the railway; these are usually the beds of tanks in which the Babul grows spontaneously. The Deputy-Conservator calculates that he has a lakh of trees fit for cutting, a lakh and-a-half coming on, and any number of seedlings. The system of conservancy is very simple. A little fencing near thoroughfares and a watchman told off to each tank is all that is needed to ensure the quick growth of the trees. Whether the Railway Company will find it worthwhile to purchase this fuel at market rates is at present an open question; but whether or not, the country is benefited by the extension of the production of fuel.

7. There is hardly work sufficient for a separate Overseer for these reserves; he is, therefore, employed to look after adjoining plantations kept up from Jungle Conservancy, and his pay might well be divided between Forest and Jungle Conservancy, instead of being debited solely to Forest as at present.

8. The Deputy-Conservator complains of the difficulty of preventing the smuggling of forest-products. Leasing out these forest-products at all seems to me contrary to the spirit of Government Proceedings, No. 240, dated 1st March 1873, abandoning such like rents in the Revenue Department, but as our hills are uninhabited no rights are infringed by the lease.

9. Judging from the Map recently furnished by the Collector of Madura, nearly all the hills that have hitherto formed part of the Strivilliputtur Taluq of this district, some 15 miles in length, have been transferred to the Saptur Zemindari. As, however, I understand that the area claimed by the Zemindar is but six square miles, it would be well to take advantage of the Survey Party being engaged in the Madura District to have the forest boundary between Tinnevelly and Madura surveyed.

10. The receipts for the year under report were Rs. 16,820, and the expenditure Rs. 13,428, leaving a net balance to credit of Rs. 3,392.

11. The Public Works Department was supplied with Rs. 357 worth of timber, which was debited without payment to that department.

Appavu Pillai, an Overseer, died while absent on leave, and several subordinates had to be removed for misconduct.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) R. K. PUCKLE,
Collector.

[ENCLOSURE 1.]

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
PALAMCOTTAH, 20*th May* 1873.

From

W. C. HAYNE, ESQ.,
Deputy-Conservator of Forests, Tinnevelly,

To

R. K. PUCKLE, ESQ.,
Collector of Tinnevelly.

SIR,—I have the honour to submit my Accounts and Administration Report of the Tinnevelly forests and fuel reserves for the official year 1872-73.

2. The forests in the five hill taluqs of Tinnevelly have been visited by me, some twice and the more important ones oftener. The forests above Singampatti have also had my attention.

SECTION I.

3. Nearly nine months, or 264 days, out of a year of eleven months (the twelfth month I was away on privilege leave) were spent in circuit, and the remainder of the time at head-quarters.

SECTION II.

4. *A.*—All the forests are under reserve. Felling has been carried on to a very small extent, and that which took place was chiefly the execution of indents from the Public Works Department.

5. *B.*—One tank-bed after another has slowly been added to the fuel reserves, and kavalgars appointed to watch them, of whom there are now twelve, and they are under the charge of two

Maistries. Three tank-beds have been added during the year, making on the whole eleven reserves, and aggregating about 790 acres.

6. Nine of the reserves were sown broadcast and two ploughed up and sown, thus causing the whole of the area to have been brought under cultivation. The seedlings have sprung up remarkably well and thickly, but whether they will all live remains to be seen. The season has been a very favourable one for their growth, having had rain at short intervals. About 107 bushels of Babul seed were sown throughout the year.

7. There are 100,000 trees ripe for felling, representing 63,839 tons of wet or green wood, which is equivalent to 47,098 tons of dry wood. This reduction in weight may, I think, be relied on, as Mr. Theobald, at my request, cut down two trees of ordinary size which weighed when green 2,862¼ lbs. and when dry 2,110 lbs., thus losing about 25 per cent. in weight. There are another 150,000 trees of fair size, a large number of which will become ready for the axe each consecutive year.

8. I hope by next year to have ascertained all the available land for railway fuel purposes, and to bring a large portion, if not all, under cultivation; this, however, will depend on the time required to be devoted by the forester to jungle conservancy works, for it will be seen from his report, No. 270, dated 6th January 1873, submitted to you, that his chief time has been given to jungle conservancy purposes, though especially appointed to take up and look after fuel reserves. I hope also to get a large number of the reserves carefully demarcated and their accurate areas ascertained.

9. A sum of Rs. 1,102-10-9 has been spent on conserving the reserves, but to arrive at an accurate conclusion of the actual cost of conservancy, including purchase of seeds, etc., the charge of Rs. 324 for office establishment should be deducted, which gives Rs. 778-10-9, as the actual conservancy expenditure.

Vide Statement B.

10. *C.*—There are no plantations on hand, but I invariably give the two abandoned ones a look when in the vicinity, to see how the surviving plants are thriving through choking weeds and grass and with no attention. I can find no plants alive in the plantations at the lower elevation as might have been expected, having had no attention and being left to the mercy of weeds and weather; but those at the higher elevation at Polaru, planted at the foot of some kumari cultivation, are doing very well, though they have not shot up as rapidly as I anticipated, but they have added to the thickness of their stems considerably. There were a very few casualties, which augurs well for the planting up of the abandoned kumari land with good and useful timber trees.

SECTION III.

11. The license and voucher system has, I am glad to say, been discontinued for reserved timbers, but it is still in force for the removal of junglewood for building purposes; this I, however, was about to abolish with your approval at the commencement of the year by cutting and supplying the wood departmentally, but the Board of Revenue disapproved of the proceeding and requested you not to carry out the measure.

SECTION IV.

12. Only 593-9-3 cubic feet of timber have been felled and brought to the depôts this year. To supply the demands of the Public Works Department 204-0-7 cubic feet were felled, and the remaining quantity is what was felled about the close of last official year, but not brought down from the forests in time to be reckoned in with that year's accounts.

Vide Statement E.

13. Timber to the amount of 2,280-0-7 cubic feet have been sold realizing a revenue of Rs. 3,452-9-10.

14. There has been a very poor demand for the depôt timber, owing no doubt to the following causes:—Our high sale rates, the rapid deterioration from exposure to sun and weather, and also to the great influx of Travancore timber, which is both cheaper and of far superior scantling

than we are able to produce, as the Travancore Government are able to employ elephant labour and carts to convey it to the plains.

15. The Puliari pass or ghaut in the Tenkasi Taluq, leading to the Travancore territory, has so far advanced during the past year that timber can be brought down it freely, and in consequence large supplies are being sent down, and periodical auctions held for the sale of it at Puliari.

16. Though we are deriving but little revenue by the sale of our timber, yet it must be borne in mind that in an indirect way we are reaping an advantage by the further conservation of our forests.

SECTION V.

17. The state of the finance is good, for though there is a large decrease in the revenue realized in comparison with the last two years, yet the profit is slightly on the increase. It must be remembered that since the re-organization the increase of salary and travelling allowance to the Deputy-Conservator has tended greatly towards swelling the expenditure, also the up-keep and opening out of fuel reserves, which bring in no returns at present, is a source which runs up the total expenditure.

18. The profit realized is Rs. 3,391-6-3, to which if the value of timber in store at the various fixed rates per cubic foot be added, will represent a profit of Rs. 16,067-6-8; this latter figure, however, should not be accepted, as I purpose making a reduction in the sale rates, with your approval, in the current year, which will at once nullify the accuracy of the above total, and also render the valuation at foot of Statement E as incorrect

Vide Statements A, B, C, and E.

SECTION VI.

19. Since the collapse of the department in October 1872, several alterations have taken place in the management of the forests. A large and important tract of forest lying partly in the Ambasamudram and Tenkasi Taluqs has been withdrawn from the control of the Forest Establishment, and the conservancy is being carried on, on a different system to that in vogue in the other forests, and the expense debited to Jungle Conservancy Funds.

20. The system pursued has been that of excluding the access of natives to the hills, except to certain spots which have been marked out for the grazing of cattle, cutting of jungle-wood, firewood, and agricultural implements, etc.

21. The same steps have been taken with regard to the forests above Singampatti.

22. The sanctioned Forest Establishment formerly employed on this tract, which I have termed the Tambrapurni Range, have been distributed over the remaining forests.

23. Judgment has been passed on the disputed boundary case between the Saptur Zemindar and Government, and has been given in favour of the Zemindar; but the land to be awarded to him in the sketch map of the Acting Collector of Madura, as far as I can ascertain, *far* exceeds the area comprised within the boundaries mentioned in the plaint, and which again is much in excess of the area (6 square miles) claimed in the same plaint.

24. No steps have been taken to demarcate the boundary which should, I think, be done with the least possible delay, to prevent further and subsequent encroachments, and that the rightful area of land only may be made over to him.

25. *Forest-produce.*—I have been much disappointed in the sale of the Cardamom produce this year for which there has been a slack demand and the prices offered very low.

26. It sold for only half the price it realized the previous year. The amount realized was Rs. 1,243-12-0.

Vide Statement A.

27. One cause of there being no demand may, I think, be attributed to one Maruthappa Tevan of Ambasamudram, Tinnevelly District, having taken a contract to furnish the Travancore Government with a certain quantity of Cardamoms from their hills, thus giving him the opportunity of bringing a large quantity, clandestinely or otherwise, into the Tinnevelly District, and disposing of it at a very moderate sum and thus commanding the market.

28. Since the re-organization the forest-produce have been farmed out in four of the forest taluqs at very successful rates, amounting altogether to Rs. 7,197; but this amount I hardly anticipate realizing again in a subsequent year.

29. *Discoveries.*—No new discoveries of importance have to be recorded, but the timber known by the name of "Shembagapalei" in this district, the true value of which up to a recent date has not been fully known, has been proved to be the *Vitex altissima*,—a timber tree of great value and much used in other districts (*vide* Inspector of Forests' letter, No. 1,619, dated 31st December 1872).

30. The District Engineer has been informed of the circumstance, and desired to make a wider use of it.

31. *Forest Offences.*—An abstract of forest offences is appended in a tabular form, showing a large increase of cases tried as compared with last year's report. This, I think, may, be viewed as the result of greater vigilance on the part of the forest officers than as an increase of crime.

There were 146 cases detected, in which 704 individuals were charged before the Joint Magistrate, the Sub-Magistrates, and Village Munsifs of the various forest taluqs, all of whom were convicted and punished.

32. *Health.*—On the whole, the health of the establishment has been good. I have, however, to report the death, on the 10th March 1873, of the Forest Overseer Appavu Pillai, one of the oldest officers of the department, and a valuable one, more, however, in the capacity of a clerk than an Overseer. He proceeded on four months' sick leave in September, and was relieved by Mr. Johnston.

33. *Conduct.*—The conduct of the establishment in general I can only report as fair having had to dismiss three Sub-Overseers, one of whom was convicted of accepting bribes, and sentenced to one year's rigorous imprisonment.

I have the honour to be,
Sir,
Your most obedient Servant,

(Signed) W. C. HAYNE,
Deputy-Conservator of Forests.

COIMBATORE COLLECTOR'S OFFICE,
31*st July* 1873.

No. 156.

From

A. WEDDERBURN, ESQ.,
Collector of Coimbatore,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras,

1 Report of C. G. Douglas, Esq., of 16th June 1873, with 7 Statements for Anamallay Range.
1 Report of do. of 16th June 1873, with 7 Statements for Bolumputty Range.

SIR,—I have the honour to forward the Forest Administration reports of this district, and commence with that of Anamallay.

1. *Deputy-Conservator's Charge.*—The Deputy-Conservator's range extends to the Anamallay mountains generally; but his special duties have been the working of the Teak forests at the western extremity situated at about 1,500 feet above the plains, or 2,500 feet above the sea. The Deputy-Conservator had also the forests of Bolumputty, due west of and in Coimbatore

District, as well as the Palghaut and Sholakeray forests in Malabar to look after, the withdrawal of which from his charge leaves him more time to devote to what is a sufficiently large range to be efficiently looked after.

2. Having made a personal inspection of the principal Teak and Rosewood forests under the Deputy-Conservator, I am in a position to record some remarks as to past and present operations; and in doing so I must accord credit to Mr. Douglas for a considerable improvement in administration which is not to be judged of by present but by future financial results.

3. *Aspect of Forest.*—On visiting these forests during the years 1871 and 1872, one could not fail to be struck with the enormous quantity of felled timber which had apparently lain for years in the jungle,—timber cut but not carried, timber which figured as stock asset, and of which the subsequent removal must be a net expense, without anything to show on the credit side. This explains the financial deficit.

4. *Present Working.*—If the subsequent operations of Mr. Douglas have been less showy, they have been more useful. We are removing to depôts, selling and getting rid of surplus and over-valued stock which has been in hand for years.

5. *Working Allotment.*—The subject next in importance is the amount to be allotted to this range for working expenses. There should be a certain sum and not a varying allotment. It requires the full energies of a man to work a forest to the best advantage, but if he is uncertain whether his working expenses may not be reduced by one-half, his calculations and arrangements are put out of year, and he cannot do justice to his work.

6. *Detail of Work.*—Now the essentials of conservancy are, first, the care of existing trees; second, the means of re-placing them; third, efficient and economical working of the forest. In order to conserve the trees I have written a separate letter* on the arrangements requisite, and given my views as to re-placement which, owing to the soil and climate, I would hold to be chiefly natural and not artificial.

* No. 136 of 2nd July 1873.

7. *Forest Access and Roads.*—The efficient working is the next item, and I was glad to find that opening the forest by roads was engaging Mr. Douglas's attention. As President of Local Fund Board, I shall advise improvement of the road to the foot of Tunicadavoo ghaut; in fact, an allotment for part of the distance has already been made; then the ghaut itself requires constant repair; it is a ghaut of 4 miles and 1,500 feet constructed by the late Captain Gosling for Rs. 5,000! but, of course, for that sum there are no stable bridges or revetments; each heavy rain makes the ghaut impassable. Ten times the sum spent by Captain Gosling will be required to give permanency to the road-way. I see no need of masonry bridges where timber is plentiful, but some outlay is indispensable in lieu of stream and ravine crossings made with brushwood and covered with split bamboo!!

8. *Working Stock.*—The next subject is the detailed working and the question of whether work is better and cheaper done with hired or purchased stock. It seems that Government elephants work economically; there is to be sure some risk of their illness, but they are exempt from the dangers run by cattle. The present system of, say, elephants with additional hired ones when business presses seems the best.

Government elephants profitable.

9. *Cattle Establishment doubtful.*—I cannot think that the carting stock has been well managed. Mr. Douglas, however, is not to blame for this, and he has reduced the establishment to order by keeping accounts. The stock consisted of 73 bullocks bought in 1866, 36 in 1869, 26 in 1870; total 135, at a cost of ... ... Rs. 7,056

The 40 carts cost Rs. 1,079, at 27 each; they cost Rs. 2,869 to repair, total ... ... ,, 3,948

Up-keep of bullocks, pay of drivers, etc. ... ... ,, 27,465

In 6¼ years, Rs. 38,469

10. The first record of one year's work done is in 1868-69 under Rs. 7,000, when subsequent accounts were kept they failed to show any less expense than contractor's rates, so that we have nearly 8,000 invested with annual deterioration at, say, ten per cent., and not more than paying its expenses, viz., about 5,000 annually of up-keep ; nearly half the bullocks are gone, which is a deduction of Rs. 3,466 out of Rs. 7,056, and the rest must have decreased in value since purchased, and can scarcely amount to the value of Rs. 3,590 as estimated by Mr. Douglas.

11. As, however, the sale of the present bullocks would be only a loss, I propose instructing Mr. Douglas to work on with the balance and to keep accurate comparative accounts of expense as regards contract cattle.

12. The general financial results of the reserved Teak forest, therefore, are herewith summarised.

Expense.		Receipts and Stock.		Net Result.
Gross Expenditure.	Receipts.	Deficiency.	Stock at close of year.	
Rs. 42,619	Rs. 11,649	30,970	137,571	162,261 = + 24,690 Net result — 6,280

13. The next subject is the forests under license and voucher system. The Deputy-Conservator has nothing to report on except the financial results, and says nothing as to the practical results in the forests in question.

14. This is a subject of very great importance, but apparently Mr. Douglas, with other urgent demands on his time, has not been able to report generally on the aspect of these, what may be termed, unreserved forests of the Anamallay Range. I have instructed him to visit and report the line of demarcation, which should be observed for the purpose of maintaining village fuel reserves, which, owing to the rapid spread of encouraged cultivation, are now rapidly disappearing or almost disappeared.

15. It is obvious that, unless fuel and communal forests are preserved from the axe of the cultivator, soon there will be none. The policy of my predecessors had been to encourage cultivation, and enormous blocks of land were disposed of with that view ; it was, however, rather a transfer of State rights to private persons. Within a quarter of a century cultivation has been carried to the very base of the Anamallay mountains, and I now propose to keep the rivers issuing therefrom as a boundary against further denudation. There is no planting to be compared with that of nature ; and if rest be given and trees not extirpated the full forest will revive.

16. What was once a dense forest,—the resort of elephants,—in the Anamallay plain is now a sheet of cultivation ; not a stick to be got that is not now private property. Viewing this state of things, I took the occasion when visiting the scene of a boundary dispute to suggest to Mr. Douglas the propriety of reserving the disputed tract if adjudged to Coimbatore as a village fuel reserve. It has been adjudged to Coimbatore, and I have instructed its being fenced as a reserve.

17. I agree with Mr. Douglas that each forest account should be kept separately. It is absurd mixing up the accounts of a reserved and departmentally worked Teak forest with general unreserved forest under other system of management. Mr. Douglas (paragraphs 9 and 10, Section III.) observes that, as the receipts were large from the license and voucher system, a more suitable establishment might have been provided. I do not think that the receipts have anything to do with the establishment which should be effective in any case. Any deficiency, however, when brought to notice will be at once supplied in the way of supervision.

18. A very important item in forest conservancy is the health of the department. In the strictest economical point of view, expense should not be spared on this point. The results of jungle fever are of such a serious nature to the individual, and the loss of experienced and responsible service so great to the State that no expenditure should be grudged in providing proper

accommodation. I regret to observe that a useful European Overseer has been obliged to be transferred. Had quarters been built for him in a high and airy spot instead of his inhabiting a low situated bungalow on the bank of the Anamallay river at the Anamallay town, I cannot help thinking that some source of disease might have been prevented, and I am by no means satisfied that the Tuniacdavoo water-fall is the best site for a jungle residence, though it has the great advantage of water in the working season.

19. I have pressed the selection of better sites and suggested the immediate construction of a suitable hut on the plains for the Overseer when not working in the forest.

20. In conclusion, I have to congratulate myself on having Mr. Douglas as a Deputy-Conservator. His good sense and judgment, as well as the interest he takes in his work, are a guarantee that the forest administration of Anamallay is safe in his hands.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) B. HORSBRUGH,
Acting Sub-Collector in charge.

P. S.—There is scarcely anything to note on the report of Bolumputty forests ; it is a mere account of collections ; no conservancy has been attempted. I have visited the locality, and given directions as regards future conservancy.

(Signed) B. HORSBRUGH,
Acting Sub-Collector in charge.

N.B.—This report was drafted by Mr. Wedderburn, but he left on leave before he could sign the fair copy.

(Initialled) B. H.

[Enclosure 1.]

Office of Deputy-Conservator of Forests, Coimbatore, 16*th June* 1873.

No. 122.

From
C. G. DOUGLAS, Esq.,
Deputy-Conservator of Forests, Anamallay, etc., Ranges,

To
A. WEDDERBURN, Esq.,
Collector and Conservator of Coimbatore.

Sir,—I have the honour to submit the Annual Report for Bolumputty Range.

SECTION I.

Inspection Tour of the Officer in Charge.—I made an inspection in February, and submitted detailed reports on several subjects for your information and disposal.

There is nothing to report under Section II., there having been no forest operations, nor under sub-headings B, Fuel Reserves nor C, Plantations.

Contemplated Operations.—I am not aware that any definite conclusion has been arrived at as to the future working of these forests. I presume a good deal of time will be occupied in exploring at first.

The Rosewood cut by Lieutenant Foord in 1865 or 1866 might, I think, be brought out of the forest this season, as the timber has been decided to be Government property. Some of it is of the length and girth required by the Gun Carriage Manufactory.

Vide G. O., No. 241, dated 4th February 1871.

SECTION III.

License and Voucher Forests.—The Bolumputty forests are worked entirely on this system, but, considering their importance to the district as regards both fuel and water supply, the substitution of a better conservancy is very desirable. They are shortly to be placed under a separate officer, and the introduction of reform will rest with him.

SECTION IV.

Yield of Forests, etc.—Statement E sufficiently indicates the quantity and description of yield for the year. The revenues have increased by Rs. 176-8-6, the expenditure by Rs. 211.

SECTION V.

Financial Results.—These are fairly satisfactory, resulting, as per annexed Statement, in a net profit of Rs. 2,428 after paying all charges.

Gross Expenditure.	Receipts.	Difference between the 1st and 2nd Columns.	Value of Stock at the close of the year.	Increase or decrease of Stock during the year.	Net Results.
RS.	RS.	RS.	RS.	RS.	RS.
1,417	3,559	+ 2,142	93 379	+ 286	+ 2,428

The value of stock has increased by Rs. 286 in consequence of the Rosewood logs, formerly cut by this department on land to which a claim was raised (in 1865 or 1866) by one Andu Sait of Coimbatore, having been appropriated once more. A survey having been completed and limits defined, the timber was found to lie in Government forest, and I have, therefore, brought it to account this year.

SECTION VI.

General Remarks, Conduct of Establishment, etc.—The Overseer in charge has given satisfaction; he apparently endeavours to do his best.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) C. G. DOUGLAS,
Deputy-Conservator of Forests,
Anamalay, etc., Ranges.

[ENCLOSURE 2.]

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
COIMBATORE, 16*th June* 1873.

No. 123.

From

C. G. DOUGLAS, ESQ.,
Deputy-Conservator of Forests, Anamalay, etc., Ranges,

To

A. WEDDERBURN, ESQ.,
Collector and Conservator of Coimbatore.

SIR,—I have the honour to submit my report on the administration of the Anamalay Range for the year 1872-73 in the form and accompanied by the returns prescribed by the Board in Proceedings, No. 746, dated 8th May 1873.

SECTION I.

Inspection Tour of the Officer in Charge.—The month of April was devoted to office-work at Coimbatore.

2. On the 20th May I proceeded to Beypore and Calicut. At the former place inspected depôts, and at the latter consulted the Government Vakil as to the defence of a suit already reported to Government.

3. On the 5th June left Coimbatore for Anamalay where I remained till the 13th and started again for Calicut. On the successful termination of the suit above alluded to, I accompanied the Collector of Malabar and the Officiating Conservator of Forests to Nellamboor, returning to Beypore by the 30th.

4. On the 1st July reached Palghaut and remained there till the 8th, inspecting work, examining accounts, etc. The rest of the month was occupied in attending to Anamalay operations.

5. On 1st August proceeded to Coimbatore, returning to Tunicadavoo by the 5th or 6th, after placing Mr. Lloyd's substitute in charge of the Palghaut and Sholakeray forests. Engaged for the rest of the month on forest work.

6. In September paid a short visit to Palghaut, but spent most of it at Tunicadavoo. I was, however, present at the investigation of the boundary question between Coimbatore and Malabar, conducted by the Collectors of the districts concerned.

7. In October I again visited Palghaut.

8. The whole of November was spent at Tunicadavoo. Most of my establishment being on the sick list, the work devolved on me. On the 20th, the limit fixed for residence above ghaut, I sent down such of the subordinates as had not already left.

9. On the 5th December my servants falling ill I was obliged to quit the camp, and until the 12th, when I proceeded to Coimbatore, I worked the forest from Settupolliem, a few miles from Adivarum.

10. From the 20th of January to the 1st of February I was engaged in showing Mr. Hadfield, Assistant Conservator, round the forest, and giving him what information I could as to the work in hand. At this time there was only one Overseer available for duty.

11. The greater part of February was spent on an inspection tour of the Mettupolliem, Gopanairi, and Bolumputty forests.

12. In March I visited Walliar and neighbourhood on several occasions, employing the intervals on office-duty at Coimbatore.

SECTION II.

A—Reserved Forests. *Felling.*—Fifty-three Rosewood, 31 Teak, 10 Vengay, and 10 Carumurdoo trees, were cut in the leased forest.

2. The sum of Rs. 574* has, therefore, to be adjusted against the advance of Rs. 30,000 made to the Nambudi in 1867, which added to the stump fee of previous years, viz., Rs. 2,670, leaves an outstanding of Rs. 26,756 to be recovered by Government.

	Rs.
* 53 Rosewood trees, at 6 Rs.	318
31 Teak, at 6 Rs.	186
10 Vengay, at 3½ Rs.	35
10 Carumurdoo, at 3½ Rs.	35
Total...	574

Rosewood.	C. Ft.	C. I.	C. P.
41 1st-class logs	1,531	9	6
34 2nd ,, ,, ...	957	6	6
8 3rd ,, ,, ...	208	10	10
181 Rejected	3,763	0	0
Total...	6,461	2	10

Teak.	C. Ft.	C. I.	C. P.
9 1st-class planks	233	9	3
27 2nd ,, ,, ...	587	7	1
29 3rd ,, ,, ...	670	6	8
72 Rejected	1,392	5	6
18 Logs (Bridge-piles)	450	0	0
Total...	3,334	4	6

3. The Rosewood yielded 264 logs, etc., containing 6,461-2-10 cubic feet as per margin, and cost Rs. 642-2-0, or 0-1-7 per cubic foot.

4. The Teak yielded 155 logs and planks, etc., containing 3,334-4-6 cubic feet, also particularised in the margin, and cost 488, or 0-2-4 per cubic foot.

5. The Vengay and Carumurdoo gave 686-0-6 cubic feet, and cost Rs. 53-8-0 ; the Vengay at 0-1-7 per cubic foot and the Carumurdoo at 0-1-6.

6. The cost of felling thus amounts to Rs. 1,183-10-0, but this includes a sum of Rs. 110-8-0 due to one of the axemen at the close of the year, and which, not having been paid;

is not exhibited in Statement A, though taken into account when imposing the valuation rates in Statement B.

7. The fact of more than 50 per cent. of the quantity of timber felled last season having been "rejected" seems to call for an explanation.

8. The term "rejected" has this year applied to all timber falling short of the specifications of the special indent on which it may have been cut. In this case it was cut for the Gun Carriage Department of Madras, and the Superintendent of the Manufactory is obliged to insist on receiving none but timber of the best quality and of particular measurement; it by no means follows, therefore, that logs which may prove unsuited to his requirements will be found unserviceable for ordinary purposes.

9. Three Rupees a foot is the rate paid for timber selected by the Agent of the Gun Carriage Manufactory; this is a higher rate than could be obtained for ordinary timber in the market, but rates far lower will prove remunerative, and I have not the least hesitation in stating that those logs which are rejected as unfit for Gun Carriage work will still command a fair market on profitable terms.

10. A comparison of the outturn with the number of trees felled will show, to a certain extent, the wastage in cutting and preparing timber. It has been shown that fifty-three trees of Rosewood have yielded 6,461 cubic feet of wrought timber, that is, 120 cubic feet per tree. The measurement of Rosewood trees will, I think, average about 150 cubic feet, irrespective of branches, so that there is a wastage of 30 cubic feet per tree; an additional allowance must, however, be made for bark, sapwood, flaws (sometimes very large), and irregularities of growth.

11. The Rosewood logs of the 1st class average this season 37 cubic feet, those of the 2nd, 28 cubic feet, of the 3rd, 26 cubic feet, and rejected 21 cubic feet.

12. The average of the Teak is 25 cubic feet for planks of the 1st, 21 cubic feet for the 2nd, and 23 cubic feet for planks of the 3rd class, rejected pieces average 19¼ cubic feet. When reference to the superiority in measurement of the 3rd class over the 2nd, it is necessary to explain that the classification of planks depends less on size than quality, so that these planks now entered as 3rd class, though of dimensions by outside measurement equal or superior to the qualifying measurement of the 2nd class, are not of sufficient contents in respect of perfectly sound wood. Taking two planks of exactly equal size, one often proves a 1st class, and the other a 3rd class, or even a rejected one, after deducting for flaws, cracks, etc.

13. The wastage in preparing Teak is greater than in Rosewood, owing to the process of splitting trees to eradicate heartshakes, etc., not observed this year, in the case of the latter. It is said that this method produces planks superior in quality to those obtained by the saw, but it is unquestionably more expensive as regards material. I am not prepared to recommend the introduction of saw machinery on the Anamalays; I fear it would not answer, but the cheaper system of converting timber into log, as has this season been done with the Rosewood, should now, I think, be more employed than hitherto. For certain purposes, however, split planking commands the highest price.

14. A sum of Rs. 1,247-5-0 has been expended on trimming up old logs.

15. At the close of 1871-72 much of the timber in road-side depôts, throughout the forests, consisted of large unwieldy logs, immense heads and butt, and, in some cases, whole trees, and the greater part was in such a state as to render it very difficult to arrive at a correct estimate of its quantity. Even had it been possible to transport the whole to a market, the irregularity in size and shape would have tended to depreciate its value, for buyers would naturally make large allowances for themselves. I resolved, therefore, to engage two or three gangs for this work, and the result has proved eminently satisfactory. The timber has now been made presentable, and has turned out excellently. Before handing it over to be trimmed, each log was examined, and the precaution taken of marking, in paint, the shape to which it might be cut to most advantage. When the trimming was finished a re-measurement, numbering, and stamping of all timber in the forest, not cut in 1872-73, became necessary; this has been completed, and it is found that of Teak there is 9,587-9-11 cubic feet more than had previously been taken into

accounts, and in Rosewood 28 cubic feet less. 1,243 logs were trimmed, of which 1,120 are Teak and 123 Rosewood.

16. *Dragging.*—1,178 logs and planks, etc., have been brought to depôt by Government elephants; this number includes the timber newly cut viz., 439 logs, the balance of 739 represents those logs shifted from one depôt to anothor. One elephant was hired at a cost of Rs. 312, which dragged 173 logs; this gives an average of Rs. 1-12-10 per log.

17. *Carting above Ghaut.*—2,514 logs, etc., of Teak, Rose, and Junglewoods have been carried to head of the slip (top of ghaut) from forest depôts. Of this number 1,787 were removed by contract, and 727 by the Government cart establishment.

18. *Slipping.*—The Government elephants have slipped 855 logs Teak and Rosewood to foot of ghaut.

19. *Carting below Ghaut.*—1,041 logs have been carted from Adivarum to various localities, 279 were carted to Anamalay, the rest to Palghaut, Mungarah, and Coimbatore. 497 loads only were removed by contract to Mungarah; there would have been no difficulty in obtaining carriage for more, but it was deemed expedient, in the absence of special demands from the coast, to concentrate efforts and utilize funds on emptying forest depôts.

20. Attention has been paid to the repair of roads during the year; the traffic was confined to one line, extending about seven miles from top of ghaut. Our roads are nothing but fair weather ones; indeed, during the bursts of the south-west monsoon, they are simply impassable for laden carts. This is not to be wondered at, considering the hilly and difficult nature of the country, the soil through which they run, the bogs and water-courses they have to cross, and the severe weather and heavy traffic to which they are subjected. They have certainly been put in better order, however, and the facility with which a largely increased traffic has been conducted is owing in no small degree to improved communications, rough as they may still be; and it speaks well for them that logs of from 30 to 50 cubic feet could be transported over them with safety in ordinary carts. I do not refer to a few isolated cases; there were many logs of more than 48 cubic feet carted this season.

21. The rest of the year's work, such as hutting, clearing brushwood, formation of fire-paths, etc., does not call for special remark. The expenditure on hutting was increased by a considerable sum spent in improving the site of the forest camp at Tunicadavoo. A large clearing has now been made, and it is intended to plant it with Teak, having due regard, of course, to the maintenance of a sufficient open space. A portion of the actual cost of felling, etc., was, therefore, debited to the heading of Plantations. It is hoped that these measures may improve the condition of the camp as a place of residence.

22. *Contemplated Operations.*—As we have timber stored at Ponani and Beypore and some at Mungarah, it has been decided to keep the rest of our stock at foot of ghaut or Anamalay until a demand from the coast or elsewhere arises.

23. It is, therefore, proposed to employ the Government carts in conveying timber to Anamalay from foot of ghaut after they have removed the small quantity in forest depôts.

24. The Government elephants will slip the timber now at top of ghaut to Adivarum.

25. 8,000 cubic feet of Rosewood and 5,000 cubic feet of Teak are required by the Madras Gun Carriage Manufactory; 6,000 cubic feet have still to be cut. The quantity selected by the Gun Carriage Manufactory Agent will be delivered at Pothanore before close of 1873-74.

26. There still remains a number of *girdled* Teak; these ought to be cut, and every effort will be made to do so in 1873-74. Girdling was abandoned in the forest years ago, but one is constantly coming across the signs of its former existence. It will also be profitable to trim and bring into depôt all wind-blown trees of every useful sort to be found; special measures also will be taken to store all refuse timber down to the smallest branches. For these latter there is a demand, and it is well worth while to test the market.

27. The erection of suitable quarters for a Head Overseer with stores is contemplated at Anamalay.

28. If funds permit, the road between Anamalay and Adivarum, 8 miles, might be improved. A grant-in-aid from Local Funds might perhaps be obtained for a part of the distance.

29. It is, I think, much to be regretted that while year after year passes and tons on tons of valuable timber are drawn from this forest, no special conservancy fund is provided. It may be doubted if planting, such as is carried on at Nellambore, would be successful, if practicable, here; but it is obvious that, if it is not intended to work out and then abandon the forest, something should be done to secure a future crop of timber.

30. I am not able to say what the forest has cost, or what it has yielded from the commencement, but from 1859 to 1873 it has cost Rs. 4,76,228, out of which something less than Rs. 7,000 have been spent on conservancy proper, and even out of this it is impossible to say how much, under heading VII., has gone in works pertaining to timber actually in store. One of the most important things to be done, I think, is to ascertain the resources we have to depend on, by forming some estimate of the crop of ripe timber and the condition of that which is to succeed it.

31. The survey and demarcation of the reserved forests having from various causes been unavoidably postponed, will, it is hoped, make considerable progress in 1873-74.

32. The boundary question between Government and the Nambudi of Colengode is so far settled that the former have decided to utilize the disputed tract as a fuel reserve; this, therefore, will provide part of the coming year's work, in addition to the usual routine which need not be detailed.

33. *B. Fuel Reserves.*—There are as yet no fuel reserves in the range, but the proposal to form the one referred to above has been approved, and is shortly to be carried into effect. The land has been inspected, and a report thereon submitted in accordance with Board's orders. The reservation of this tract is likely to prove of great benefit to the neighbourhood, and similar blocks should be marked out for the like purpose in other parts of the range from the remnant of jungle still in our possession along the base of the hills.

34. *C. Plantation.*—Between 8 and 9 acres are now planted with Teak; about 20 per cent. of the plants have failed, but those which have established themselves are thriving. It is intended to plant a part of the ground which has been cleared round Tunicadavoo, amounting probably to 8 or 10 acres. Felling more jungle in order to plant is not contemplated for the present.

35. A good Teak nursery has been made this year of fifty-seven beds, twenty-five to thirty feet in length by three and-a-half feet in breadth. The seed was sown about the 15th of March, and germinated on the 8th April, each of the previous years' plantings has undoubtedly suffered from a want of vigour in the seedlings when first put out. I imagine that at no stage will Teak display here the rapidity of growth characteristic of Nellambore; seedlings certainly do not; and it was, therefore, resolved to sow early in order that when the season came round the plants might be more advanced and less liable to suffer from removal.

36. The nursery is far in excess of actual requirements, even allowing for a heavy percentage of casualties; something may, therefore, be done in planting up gaps in the forest generally.

37. The sum of Rs. 705-0-11 has been spent on plantation work during the year as follows.

38. Nursery work Rs. 119-2-7, pitting Rs. 135-10-4, planting Rs. 105-11-0, weeding, clearing of brushwood, and formation of fire-paths, Rs. 205-5-0. There is a sum of Rs. 851-2-11 under this heading in Statement A; the difference includes a share of cost of felling round the camp site brought under "Plantations," and several sums for which bills have not been submitted up to the close of the year, but which, under new rules, are charged against the year in which they were disbursed.

39. Before passing to the next section, it is necessary to review the working of the Government elephant and cart establishments.

40. Observing the same method of valuing the work of our elephants as that adopted for two preceding years, the establishment has been worked at a considerable saving to Government, thus :

				RS.	A.	P.
Value of work performed at Rs. 7 per diem for each elephant				6,363	0	0
Deduct—	RS.	A.	P.			
First, feed and keep	1,890	9	1			
Second, Pay of Establishment	915	3	8			
Sundries...	15	4	6			
Arrears of 1871-72	656	0	5			
				3,477	1	8
Savings...				2,885	14	4

41. 855 logs were slipped, and the expenses of the establishment during the time it was engaged on this work amounted to Rs. 653-1-3 ; so that we slipped each log for about 12 Annas and 3 Pies, whereas if we hired elephants every log would cost Rs. 2-6-11.

42. 1,178 planks were dragged by elephants, and their cost, while engaged thus, as well as their expenses during their two months' rest, amounts to Rs. 2,168, so that each log cost about Rs. 1-13-5.

43. The estimate of the work includes valuation of forty-seven days' labour on sundry works.

44. The elephant engaged for forty-eight days, costing Rs. 312, dragged 173 planks ; this gives a rate of Rs. 1-12-10 per plank, a saving of 7 Pies over Government elephants, but the hire of this animal was only Rs. 6½ per diem, and its work less heavy than that given to our own.

45. The cart establishment, though apparently not so profitable a concern as the other, shows an improvement on last year's results.

46. The value of work performed as noted below is Rs. 3,610-12-0, while the cost of maintenance amounts to Rs. 4,191-1-3 (of which, however, Rs. 1,044-2-10 are arrears paid for last year) ; there is thus a balance of Rs. 580-5-3 against the establishment, which sum added to the deficit of 1871-72 makes a total of Rs. 1,719-14-7. The actual results of the year are nevertheless favourable, for deducting the arrears of the previous year, Rs. 1,044-2-10, the cost amounts to Rs. 3,146-14-5, so that the value of work performed really exceeds the outlay by Rs. 463-13-7. Four bullocks have died during the year.

	RS.	A.	P.
For carting 120 ordinary planks to Mungarah, Palghaut, and Coimbatore, from foot of ghaut, at 5¼ Rs. per plank ...	630	0	0
For carting twenty superior planks from Anamalay to Coimbatore, at 6 Rs. per plank	120	0	0
For carting sixteen superior Teak piles from foot of ghaut to Pothanore, at Rs. 7-14-0 per pile	126	0	0
For carting twenty superior junglewood log from foot of ghaut to Coimbatore, at Rs. 7-14-0 per log	157	8	0
For carting 297 ordinary Teak planks from foot of ghaut to Anamalay, at Rs. 1-4-0 per plank	371	4	0
For carting forty-seven superior Teak planks from Karian Sholah to Moodie, at Rs. 3 per plank	141	0	0
For carting 534 ordinary Teak planks from Pooliady to Moodie, at Rs. 2-8-0 per plank...	1,335	0	0
For carting 146 superior Teak planks from Pooliady to Moodie, at Rs. 5 per plank	730	0	0
Total ...	3,610	12	0

47. The cart establishment was first sanctioned in December 1866, so that it has now had a trial of six years and-a-quarter, and it may be useful to investigate the results of its working during that period.

48. In 1866 seventy-three bullocks and forty carts were purchased for Rs. 4,012. In 1869, thirty-six were bought for Rs. 2,385, and a further sum of Rs. 1,738 was paid for twenty-six in 1870; total outlay Rs. 8,135.

49. The maintenance of the establishment during the 6¼ years it has been in existence has cost Rs. 30,334-7-2, viz., 1st, feed and keep of cattle Rs. 12,516-7-5; 2nd, pay of drivers, etc., Rs. 14,948-8-8; 3rd, repair of carts Rs. 2,869-7-1.

50. Between the 31st December 1866 and 31st March 1873 forty-eight head of cattle have died (of which nine died in 1868 and twenty-two in 1869), twelve have been cast and sold for a mere song, and six have been killed by tigers. Probably more were killed by tigers, but no special record seems to have been kept, the casualties being simply put down as "deaths" till June 1870. The establishment has thus lost sixty-six head out of 134, or very nearly half.

51. The value of the remaining sixty-eight cattle cannot be estimated at more than Rs. 3,590,—an estimate from which is omitted any allowance for depreciation from age or other causes; therefore, putting the carts at their original cost of Rs. 1,079, the sum of Rs. 3,466 represents the value of the loss sustained by casualties.

52. Now presuming the establishment to have been managed, on the whole, to the best advantage, the question seems to be what value shall be placed on the conveniences, undoubtedly great, afforded by the means of transporting timber when and where it is desired. In other words, supposing it is not possible to make the thing actually a paying concern, it is necessary to reflect how far the advantages compensate for the loss.

53. No regular roster of work performed appears to have been kept prior to the one opened in June 1870. The notices in various reports, however, show that to the end of 1870 the establishment had more than paid expenses. No work is recorded for 1866-67, and the result of work performed in 1867-68 is not given. In 1868-69, however, the establishment did work to the value of Rs. 6,909-6-0, having cost only Rs. 3,324-3-6, so that a saving of Rs. 3,585-2-6 was effected. In 1869-70 a deficit of Rs. 213 occurs, which reduces the profits to Rs. 3,372-2-6 for the three years. Since June 1870 two out of three seasons work have failed to show any saving over contractors' rates, and the total deficit on 31st March 1873 is Rs. 1,719-14-7 due credit having been taken for the saving of 1870-71.

54. The deficit of the last three years, therefore, reduces the profits of the preceding like term to Rs. 1,652-3-11, but taking into account the loss in stock, amounting to Rs. 3,466, there is a final balance against the establishment of Rs. 1,813-12-1 for the period of six years, or an average of about Rs. 302-4-8 per annum.

55. Assuming the correctness of the figures on which the foregoing calculations are based, I do not consider the average loss incurred sufficient to counterbalance the benefits arising from the establishment.

56. It is probable that during the next six years the death rate among the cattle will be higher, while less work will be obtainable as the animals become enfeebled by age.

57. If, as is stated in paragraph 12 of the report on this range for 1868-69, the value of the work performed by Government carts, calculated at contractors' rates, amounts to Rs. 6,909, it is not clear why so small a sum as Rs. 3,284-8-9 is imposed on the work of 1869-70 (*vide* paragraph 3 of the Report for that year).

58. In 1868-69, 585 logs were carted from the forest depôts to top of ghaut. 855 from foot of ghaut to Anamalay, a distance of 8 miles, and 82 to Mungarah, the floating station, a distance of, say, 30 miles.

59. In 1869-70, 662 logs were conveyed from forest depôts down the new ghaut and on to Coimbatore and Palghaut, both of which stations are nearly 40 miles from foot of ghaut.

60. Much, of course, depends on the distance the timber was carried from the interior of the forests, but still I cannot reconcile the two results, for I should have expected the latter year's work to have been the most expensive of the two, had it been done by contract.

SECTION III.

License and Voucher Forests.—There is little to report anent this portion of the range. The seigniorage collected this year amounts to Rs. 3,307-11-3, which is an increase of Rs. 860-4-10 on the receipts of 1871-72, and of Rs. 1,825-1-3 on these of 1870-71.

2. Statement E shows the quantity of timber, bamboos, firewood, and charcoal removed on licenses, the tax imposed, and the total receipts under each heading.

3. Free passes have been granted for 4,368 cubic feet of timber during the year,—a decrease of 2,665 cubic feet on the quantity for which passes were granted in the year preceding, and 2,528 cubic feet more than in 1870-71.

4. Free passes have also been issued for 148 tons of firewood, which is less by nearly 50 tons than was granted the year before, and 147 tons less than in 1870-71.

5. 347 bandy-loads of bamboos have been taken out of the forest free of tax this year, which is less by 777 loads than were removed in 1871-72 ; in 1870-71, 638 loads were granted on free passes.

6. A comparison of these figures with those of Statement E shows that the quantity of timber granted free is more than that on which tax was levied by 4,046 cubic feet ; also that the quantity of firewood which did not pay tax is equal to more than three-sevenths of that which did, and that in bamboos the number of loads which paid was greater by 2,640 than that which did not.

7. I think it very desirable that, as the license and voucher forests form a separate branch of the Range work, and are completely distinct from the "*Reserved Forests,*" the cost of the establishment for their protection, as well as the revenues derived from them, should also be a separate debtor and creditor account.

8. Hitherto the seigniorage collections have been shown amongst the Anamalay receipts and in return Overseers and Peons have been supplied.

9. The receipts of the license forests this year average more than Rs. 250 per mensem, and for a little more than half this amount a more suitable establishment could be provided.

10. The sanctioned number of peons is not at present sufficient for both reserved and open forests.

SECTION IV.

Yield of Forests, Expenditure, etc.—Statement A, B, C, and D show, respectively, the expenditure, value fixed on new stock, sales, and particulars of stock on hand on 31st March.

2. I am not aware of anything calling for special remark in Statement A.

3. In Statement B, the value imposed is regulated by actual cost of the timber agreeably to G. O., No. 962, dated 22nd June 1872 ; it will be seen that the timber has been economically cut and stored, and that it can eventually be brought to market at an outlay admitting of a profit on even the lowest rates of sales obtainable.

4. The difference in the value of the first two items (Rosewood) is owing to one batch of timber having been brought to top of ghaut, while the other has merely been delivered at road-side depôts.

5. The former consists of 183 logs, containing 4,020 cubic feet ; the latter eighty-one logs, containing 2,441-2-10. The difference in value represents the cost of transport between forest depôts and top of ghaut, viz., 1½ Annas per foot.

6. In estimating value I have allowed a charge of 4 Annas 11 Pies as cost of supervision and sundry expenses ; the rest includes all charges, share per cubic foot of stump fee, felling, dragging, etc.

7. The Teak is more expensive than the Rosewood ; the whole has been brought to top of ghaut for less than 12 Annas per cubic foot, including all charges, and some to Pothanore for Rs. 1-1-7 per cubic foot.

8. The Vengai and Carumurdoo have been delivered at Coimbatore at a very moderate cost, and the sale result Statement C encourages the hope that a larger trade in these useful timbers would be profitable.

9. Statement C shows the profit on the year's sale of nearly 18 per cent.

SECTION V.

Financial Results.—The annexed table exhibits the net result of the year's transactions, viz., a deficit of Rs. 6,280 :—

Gross Expenditure.	Receipts.	Difference.	Value of Stock at the close of the year.	Increase or Decrease of Stock.	Net Results.
RS. 42,619	RS. 11,649	RS. —30,970	RS. 1,37,571 / 1,62,261	RS. +24,690	RS. —6,280

2. This is not to be ascribed to extravagance in working, nor, as has just been shown, to the failure of such sales as took place. It is partly attributable to the large outlay consequent on the transport of old stock, the value of which was taken credit for some years ago when rates were higher. When the whole of the present stock has been stored in localities whence it can be sold direct without further expenditure, it may be hoped that the deficiency will be more than covered by proceeds.

3. It is perfectly clear from Statement C that the department can work at a considerable profit, but the accumulation of a stock largely in excess of the demand or of the means required for transport, defers realization for an indefinite period, during which a certain outlay and proportionate diminution of said profits are unavoidable.

4. During the last ten or twelve years the demand for Anamalay timber has been exceedingly fluctuating ; at one time ceasing entirely, and at another proving larger than we were in a position to meet. For greater portion of that time the principal efforts of several successive officers have been directed to the transport of old stock.

5. It is not satisfactory to have to record a deficit of over 6,200 Rs., but it is something to have accomplished the almost total clearance of forest depôts, and to be able to state that only 397 loads of old and 81 of new timber remain.

6. Under the new system of accounts, the sum of Rs. 2,005-9-11, representing unadjusted items, has been debited to the year's expenditure and stands as a portion of the Rs. 6,280.

7. Again, under circumstances reported to Government (*vide* Proceedings, No. 408, dated 16th April 1873) one of the items in last year's stock account has been reduced by Rs. 9,043-11-5; but for those two alterations a small balance of more than 4,700 Rs. in favour of the range could have been shown.

8. The accounts for the last fourteen years, viz., from the beginning of 1859-60 to the 31st March 1873, have been examined. The expenditure during that time, including, of course, establishments, amounts to Rs. 4,76,228, and the receipts by sale of timber amount to Rs. 6,69,518 giving a balance in favour of the forest of Rs. 1,93,290, or a yearly average of Rs. 13,807. In calculating net results by the same method of bringing into account the annual increase or decrease of stock as is employed in the table annexed to paragraph 1, Section V. of this report, the profits of the forest average Rs. 22,500 per annum. I think this forest could be rendered as valuable as ever without resorting to plantations by a judicious outlay on the conservancy of

indigenous trees. A year or two devoted to complete rest and strict conservancy would do wonders, and enable us to start on a new footing, while the light of former experiences should benefit the future working.

9. To show how the trade of this range fluctuates, I may observe that in these fourteen years the cash receipts on one occasion amounted to as much as Rs. 2,65,953, or Rs. 2,43,468, more than the year's expenditure. On another, Rs. 75 only were realized or Rs. 33,764 less than the cost of the year. Again, from 1865-66 to 1870-71, both inclusive, the net result of each year was unfavourable, varying from a deficit of 49,124 Rs. occurring in 1865-66, to Rs. 9,390 in 1870-71.

10. Tested by this system it is found that the net results of the past few years, from 1865 to 1870, do not correspond with the actual money transactions; that on those occasions when the largest sales were effected the decrease in value of stock more than counterbalances the actual money profits. This is doubtless, in some degree, attributable to over-estimating the value of timber in the forest, allowing an insufficient margin for the cost of transport, etc., to a market. The present mode of valuation, however, renders such an error impossible.

SECTION VI.

General Remarks.—The question of transport, more especially above ghaut, has always been a difficult one in this range. It is, therefore, gratifying to be able to show a decided improvement in this important branch of work. For the last three years there has been a steady increase.

2. In no season since 1861-62 has so much timber been removed from the forest as in the one now under report. Taking the quantity removed *above and below ghaut*, it will be found less than the performances of last year, but the reason of this is explained in paragraph 19, Section II. The small balance still in the forest could have been carted out had it not been for the unusual and prolonged severity of the rains of the north-east monsoon. This, it will be remembered, was experienced in a greater or less degree throughout the Presidency.

3. In view of the large stock on hand, and in the presence of means adequate to its removal, it would be well to decide, as quickly as possible, in what direction a market is to be sought, for if not utilized the labour will, of course, seek employment elsewhere, and may prove very difficult of recovery.

4. The conduct of the establishment has, on the whole, been satisfactory.

5. The health of subordinates has been very indifferent. Mr. Taylor, the Head Overseer, has suffered much from fever, and, after obtaining one month's privilege and two months' sick leave to the Hills, has been compelled to apply for a transfer. Assistant Overseer Mootoosawmy Pillay was also on sick leave for three months, and, being no longer equal to the work of this range, has also applied for a change. He has been more than twenty years, however, on the Anamalays. My Second Assistant Overseer Syed Ghoolam Sheffe has resigned. The prevalence of fever was a source of great inconvenience. I was left at times without a soul to assist me.

6. Five deaths from fever occurred during the year, viz., the Fouzdar, one Peon, one Mahout, and two drivers; a driver also died from snake-bite, likewise a horse-keeper of Mr. Taylor's. In both instances death ensued within twenty-four hours, and in neither could the class to which the snakes belonged be determined, they having, as usual, been battered out of recognition.

7. Beforing closing the report, it is necessary to chronicle one of the most important results of the past or of any previous year. The Teak forest has been declared a strict reserve, the Conservator (Collector) having notified the same in the gazette. Nobody* who is not in the service of the department is now allowed entry, unless he can produce a pass from the Deputy-Conservator; this is in strict conformity with the concluding words of paragraph 11, G. O., No. 240, dated 1st March 1873, and is a great step gained.

* Jungle tribes are, of course, excepted.

8. The withdrawal of the Palghaut, Sholakeray, and Bolumputty forests from the charge of the Anamalay officer is another measure calculated to operate beneficially on this range.

9. A variety of seeds has been collected during the year for the Mauritius and other places.

10. It is to be regretted that no specimens of timber were sent to the Vienna Exhibition, but so short a notice was given that it was quite impossible to make a collection worthy of the Anamalays, and therefore the attempt was abandoned.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) C. G. DOUGLAS,
Deputy-Conservator of Forests,
Anamallay, etc., Ranges.

COLLECTOR'S OFFICE, COIMBATORE,
31*st July* 1873.

No. 157.

From

A. WEDDERBURN, ESQ.,
Collector of Coimbatore,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to forward, without remark, Colonel Morgan's Administration Report as regards Mudumallay forests which are in Malabar and not Coimbatore. I took the opportunity of joining Colonel Morgan in the inspection of the Sattimungalum, via Hassanoor, and Collegal Sandalwood plantations and depôts, and of making some inquiry regarding a long standing Mysore forest claim. The Sandal plantations appeared to be thriving, and as the wood is so valuable a plantation may recoup its cost.

1 Report of Colonel Morgan, No. 131-297, of 10th July 1873, with
8 Statements for Bhowany forest.
8 ,, for Seegur and Sattimungalum forest.
8 ,, for Collegal forest.
8 ,, for Mudumallay forest.

2. Having seen Colonel Morgan's operations, I then made a tour by myself in a different direction up the Bhurghur ghaut, north as far as the river, which joins the Cauvery at Cauveripuram.

3. I have related to the Board of Revenue in Proceedings, dated 29th May 1873, No. 27-897, the state I found collections in where remote jungles had been let and sub-let with the view of obtaining a small seigniorage.

4. So completely converse to all idea of communal rights was that system, as I found in the north Bhowany Taluq jungles, that I proposed a plan which will make its repetition impossible, and which is now under the consideration of Government.

G. O., No. 622, of 18th June 1873.

5. I regret that I am not in a position to offer an opinion as to the real amount of railway fuel that is procurable in the Bhowany Taluq at Nerinjeepet. I did not visit, but judging from the country, through which the Bhurghur stream runs, and which I explored in all directions, I do not think that the sparse hill forests in the north-east of this district afford a permanent fund for the railway to draw on, and that advantage must be taken to stock all the Cauvery padugays or reedy margins with the Babul tree which stands submersion.

6. I also visited the fuel reserve at Mettoopolliem ; it is on the plain below the Kotagherry ghaut, and has been rather contemptuously alluded to by the Nilgiri plateau officer. It is wonderful how even a dry, thorny jungle recovers by the exclusion of cattle. I expect that the

grass cut thereon will be eagerly sought for in the dry weather, when the flocks have eaten every green thing, which devastation results from unlimited access to jungles, and no restriction of stock grazed.

7. Mr. Ross has solely been appointed to the Mettoopolliem and Upper Bhowany Range, and I expect some good practical results from his scientific education.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) B. HORSBRUGH,
Acting Sub-Collector in charge.

N.B.—This report was drafted by Mr. Wedderburn, but he left on leave before he could sign the fair copy.

(Signed) B. H.

DEPUTY-CONSERVATOR'S OFFICE,
OOTACAMUND, 10*th July* 1873.

No. $\frac{131}{297}$.

From

COLONEL H. R. MORGAN,
Deputy-Conservator of Forests, Ootacamund,

To

A. WEDDERBURN, ESQ.,
Collector and Conservator, Coimbatore.

SIR,—I have the honour to forward the Annual Report of the forests under my charge for the year 1872-73.

SECTION I.

INSPECTION TOURS.

In April 1872.—Collegal was visited ; also the Mysore timber yard.

In May.—The Mudumallay planting and carting operations were inspected ; also the work in Seegur forest and Sandalwood plantation.

In June.—I visited the Sandalwood plantations at Tullamallay and inspected the jungles at Vylore in Collegal ; also the Sandalwood plantation there.

In the latter part of the month I visited the Nellumbore Teak plantations in company with the Collector of Malabar.

In July.—The floating and other operations at Bhowany and Nerinjeepet were inspected, also the Mettoopolliem jungles ; in the latter part of the month Mudumallay plantations and work were inspected.

In August.—I inspected the new land at Nellumbore about to be purchased for Teak planting ; also some land near Walliar about to be purchased for a railway fuel plantation.

In September.—I again inspected the planting and other operations at Mudumallay.

In October.—I visited Mettoopolliem and the new land purchased in the Nellumbore jungles ; in the latter part of the month the work in Collegal, Vylore Sandalwood plantation, and Tullamallay plantations in Sattimungalum.

In November.—The Sandalwood plantations in the Seegur forests, the operations at Mudumallay, and saw-mill at Seegur.

In December.—Mudumallay and Seegur forests.

In January 1873.—I visited the saw-mill in Seegur, the plantations of Tullamallay with the Collector of Coimbatore, Vylore plantations, and the Ballyrungam Hills to inspect the boundary between Coimbatore and Mysore.

In February.—I visited the Mudumallay and Seegur forests, the saw-mill works at Seegur; in the latter part of the month, the floating operations at Erode, Bhowany, and Nerinjeepet, and the Mettoopolliem fuel reserves.

In March.—Mudumallay and Seegur, the saw-mill work, the Sandalwood plantations at Tullamallay, and the operations in Collegal were inspected.

SECTION II.

A.—Reserved Forests, Operations, etc.

Mudumallay Forest dragging Timber.—5,124 cubic feet have been dragged from the forests to the depôt at a cost of Rupees 915-14-1; besides some 200 logs were set up for sawyers by elephants, and felling cleared of trunks of trees, etc.

Carting Timber.—In the year sixteen carts have been employed in carting timber from the forest to the Karkana depôt; 20,459 cubic feet were carted at an expense of 4,571 Rupees, besides carting from Tippecadoo depôt to the saw-mill 20,000 cubic feet, at one Anna a cubic foot = 1,250 Rupees, which makes the cost of carting in the forest Rupee 0-2-1 per cubic foot, or 1 Pie a cubic foot in excess of contractor's rates. I may remark that a good deal of the carting in the forest was from the very farthest depôts, and contractors would probably have charged 3 Annas a cubic foot instead of 2 Annas, so that our carts have worked cheaply, though there is no apparent profit.

Roads.—The main line of road with feeders is in a good state of repair, though wild elephants are still troublesome, breaking bridges and trampling the roads into a muddy state.

Contemplated Operations.—30,000 cubic feet of Teak to be carted to Mysore and 20,000 cubic feet to Ootacamund, partly beams, partly sawn timber; to saw up 20,000 cubic feet of cracked beams at the Seegur saw-mills.

B.—Fuel Reserves.

Bhowany.— These are not demarcated; in the event of the railway coming to terms with us, it will be very necessary to have very large fuel reserves in the Bhurghur valley and smaller ones between Cauveripuram and Nerinjeepet.

C.—Plantations.

Mudumallay Forest. Benni Plantation.—This year 17,000 Teak plants were planted at Benni; the failures at the end of the year amounted to about two per cent. The season was very favourable for planting; the total number of plants is now 60,000. Twelve acres have been cleared for this year's planting, and new nurseries formed; the cost of the plantations up to the end of the official year amounts to Rupees 3,280-2-10; total up to last year Rupees 12,233-14-0. Total of the whole planting up to March 31st, 1873, Rupees 15,524-0-10, or about 4 Annas a plant all round up to date.

Contemplated Operations.—To plant 12 acres with Teak and to clear 12 acres for next year's planting.

Sattimungalum Forest.

Tullamallay Sandalwood Plantation.—During the past year 14,500 Sandalwood plants were put out at Tullamallay; the total up to last year was 40,400 plants; up to date the total is 54,900. Ten acres have been ploughed and pitted for planting. The trees are progressing satisfactorily. The cost during the year has been Rupees 2,496-3-0, up to last year Rupees 6,667-9-10; the total up to the end of March 1873, Rs. 9,163-12-10.

Contemplated Operations.—To plant 10 acres and clear 10 acres for next year's planting.

Seegur New Sandalwood Plantation.—A new Sandalwood plantation in a very favourable site was opened in the Seegur forest. Nine thousand plants were put out, all doing exceedingly well, and ten acres cleared for planting this year. The cost during the year is Rupees 1,742-3-5; in last year Rupees 339-0-8; total to 31st March, Rupees 2,081-4-1.

Contemplated Operations.—To plant 10 acres and clear 10 acres for next year's planting.

Collegal. Ballyrungum Sandalwood Plantation at Vylore.—In the past year 23 acres were planted with 23,000 Sandalwood plants; this brings the total planted to 47 acres; in addition to this 30 acres have been cleared and got ready for planting. The total plants up to March are 29,200. The cost in this year is Rupees 4,466-0-7; up to last year, Rupees 3,839-1-9; total up to 31st March, Rupees 8,305-2-4; besides the above work extensive water-channels have been prepared, by which the cost of watering the plants will be much reduced.

Contemplated Operations.—To plant 50 acres and clear 50 acres if funds are available.

SECTION III.

LICENSE AND VOUCHER FORESTS, OPERATIONS, AND CONTEMPLATED OPERATIONS.

Seegur and Sattimungalum License Removals.—During the year 4,729⅝ cubic feet were removed on licenses, 700 tons of firewood, and 200 cart-loads of bamboos; amount realized Rs. 2,356-1-4, of this the firewood contract amounts to Rupees 1,323-7-4.

Departmental Working.—2,902¼ maunds of Sandalwood were felled and brought to depôt, valued at Rs. 4,917-6-0; 549½ cubic feet of Vengay, 203 cubic feet of Blackwood, 37¼ cubic feet of Teak, 48 cubic feet of Junglewood, and 160¼ cubic feet of Achawood; total value Rs. 499.

Contemplated Operations.—To fell 2,000 maunds of Sandalwood and 3,000 cubic feet of Teak and Vengay to supply the market depôt at Sattimungalum.

Bhowany License Removals—Amount to 8,964 cubic feet of timber, 450 tons of firewood, 200 cart-loads of bamboos. Amount realized Rupees 4,133-8-0, of this the firewood contract produced Rupees 892-8-0.

Departmental felling.—5,932¾ maunds of Sandalwood felled and brought to depôt, valued at Rupees 10,382-5-0, and 20 tons of firewood for railway fuel valued at 60 Rupees.

Contemplated Operations.—To fell 2,500 maunds of Sandalwood and 5,000 tons of fuel for the railway; to render dangerous places in the Cauvery passable by boats and rafts.

Collegal License Removals—Amount to 2,240 cubic feet of timber, 350 tons of firewood, 150 cart-loads of bamboos. Amount realized Rupees 1,212-2-0, of this the firewood contract produced Rupees 652-2-0.

SECTION IV.

Yield of Forest. Expenditure on carting, felling, etc.—*Vide* Table A.

SECTION V.

Financial Results.—These are more satisfactory than those of last year; the expenditure on all the forests amounts to Rupees 89,386-10-7, and the returns to Rupees 1,08,342-4-1, showing a profit of Rupees 18,955-9-6. The sales at auction in Mysore have enabled us to dispose of nearly 30,000 cubic feet of Teakwood, and this year we shall most probably sell the same amount. The prices are not high, but a rupee a cubic foot; the average rate causes no loss, though we gain but small profits; the opening of the Mysore railway would at once raise the value of our timber. If the amount, Rupees 12,078-10-10, spent (out of profits) on plantations be added to the surplus of Rupees 19,845-8-0, the whole profits of the year will amount to Rupees 31,924-2-10, —a fair result for the year's work.

Mudumallay Forest.—The expenditure amounts to Rupees 46,163-13-9, and the receipts to Rupees 46,043-8-6. Planting cost Rupees 3,280-2-10, and thus represents the real profit of the year. In addition, the whole of my pay is charged to Mudumallay forest. If 10 per cent. on the gross expenditure of the other forests was charged for supervision, this would reduce the charge of supervision for Mudumallay from Rupees 12,490 to Rupees 8,260-14-0, or the profit of Mudumallay for the year would be Rupees 7,510-2-10 instead of nothing as it appears at present.

Seegur and Sattimungalum.—The financial results are satisfactory, but the Sandalwood is being gradually worked out, and it will take twenty years before any of our planted Sandalwood is available. There is but little demand for timber in Sattimungalum from our new timber yard. The expenditure is Rupees 9,694-10-7; the receipts Rupees 17,252-10-10, surplus Rupees 7,558-0-3; in addition we have spent Rupees 4,238-6-5 in planting.

Collegal.—The results here are also satisfactory, the expenditure being Rupees 13,103-12-11, the receipts Rupees 18,360-10-0, surplus Rupees 5,256-13-1, besides Rupees 4,466-0-7 spent on plantations.

Bhowany.—The results here are satisfactory; the expenditure is Rupees 20,424-5-4, the returns Rupees 26,685-6-9, surplus Rupees 6,261-1-5. We have spent but a small sum on an experimental firewood plantation, but keeping the river clear for navigation is at present a heavy item of expense, but one that does not recur again; the benefit resulting from this expenditure can be shown only in future years when we supply the railway largely with fuel. During last year 1,100 tons of fuel were stacked at Erode and 581¼ made over to the Madras Railway; the balance was made over to the Great Southern India Railway early in the year, but the receipts for the same do not appear until this year. The requirements of the Great Southern India Railway alone are at present 2,500 tons annually, the Madras line probably as much more; the late rise in coal,—a rise that promises to continue for years,—must compel the railway to resort to wood fuel, and we must be prepared to supply it.

SECTION VI.

General Remarks.

Conduct of Overseers.—Overseer Cundasawmy Pillay of Sattimungalium has been zealous in the discharge of his duties; the Assistant Overseer has likewise done his duty. The peons in this taluq have to undergo much exposure in sickly places.

Overseer Vencatappa has satisfactorily carried on the works at Mudumallay, and the planting establishment has done well as the few failures show. Overseer Grant of Bhowany has worked zealously; the Assistant Overseer in charge of floating operations has ably seconded the Overseer in these important works; the peons have generally kept down illegal felling.

In Collegal—Overseer Appavoo Mudalliar has conducted his duties satisfactorily, but the Assistant Overseer in charge of the Vylore Sandalwood plantation is unequal to the work, and unless he improves must be removed. The peons in this taluq do not keep down illicit felling as they ought to do, but they have not hitherto been supported by the Tahsildar.

The Health of the Establishment—has been better this year than last, but a great deal of fever has prevailed; as early as November a wave of fever passed over Wynaad right down to Nellumbore; I did not escape it. Three peons and the planting duffadar at Mudumallay died.

Conservancy.—During the past year the progress of forest conservancy though slow has been sure; there have been no encroachments to complain of, and prosecutions though few have not miscarried.

During the past year we have commenced sawing up cracked logs down in the Seegur forest reverting to an arrangement made some years ago with Mr. Groves of the Northern Hay Saw-mills. The wastage (owing to the timber being the worst in the depôts) is considerable, some 40 per cent., but the sale of sound sawn-timber in Ootacamund will, I have no doubt, cover the loss of wastage. I am now making inquiries in England regarding a system of sawing by electricity: a platinum wire heated to a white heat by a galvanic battery is passed through the timber, and two men may in this manner cut up the largest logs. If the system is a success, a portable sawing machine, such as I have long desired to obtain, will be available for work in the forest, and the gain will be great. The present system of three men to a saw to cut a log in half before it can be carried by a cart is tedious and expensive. One man of the three is nearly sure to be sick, and then the two remain idle, and run into debt. It is worthy of remark that in Mudumallay the stock of timber, which at the beginning of the year stood at 1,35,000, has been reduced agreeably to the advice of the Revenue Board to 1,05,000 Rupees, and will most probably this year be reduced to 40,000 Rupees, and in another year will cease to exist, unless fresh felling is commenced. Had the railway to Mysore been made as was anticipated, the stock would have been entirely exhausted by the end of this

year. Every year we spend a large amount on plantations, and provided that the situations be well chosen and due economy exercised in the planting operations, there is no doubt but that plantations of Teak and Sandalwood must be a great success.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) H. R. MORGAN, Colonel,
Deputy-Conservator of Forests.

COIMBATORE COLLECTOR'S OFFICE,
9th September 1873.

No. 198.

From

A. WEDDERBURN, ESQ.,
Collector of Coimbatore,

To

H. E. STOKES, ESQ.,
Acting Secretary to the Board of Revenue, Madras.

SIR,—In continuation of my letter, No. 157, dated 31st July last, I have the honour to forward Colonel Morgan's Administration Report on the working and conservancy of Mettoopolliem forest during the official year 1872-73. I have no remarks to offer, except that I expect it will in time supply sufficient quantity of fuel for the use of the Nilgiri branch of Madras Railway.

1 Colonel Morgan's Report, No. 157-364, of 12th August 1873, with seven enclosures.

2. I regret to state that this report has unavoidably been delayed in consequence of the change of officers in the superintendence of this forest since the commencement of this official year.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) B. HORSBRUGH,
For *Collector.*

[ENCLOSURE 1.]

DEPUTY-CONSERVATOR'S OFFICE,
OOTACAMUND, *12th August* 1873.

No. $\frac{157}{364}$.

From

Colonel H. R. MORGAN,
Deputy-Conservator of Forests, Ootacamund,

To.

A. WEDDERBURN, ESQ.,
Collector of Coimbatore.

SIR,—I have the honour to forward the Annual Report of the Mettoopolliem forest for the official year 1872-73.

SECTION I.

Inspection Tours.—As per my Administration Report No. $\frac{131}{197}$ of 15th July 1873.

SECTION II.

RESERVES.

B. Fuel Reserves.—About ten thousand yards of fencing were completed at a cost of Rupees 1,487-6-0 ; though not long finished, the growth of grass and trees within the reserve is already striking.

SECTION IV.

Yield of Forests.—As per Statement A.

SECTION V.

Financial Results.—As per Statement G.

SECTION VI.

General Remarks.—There have been great complaints regarding the issue of free licenses by Monigars and others not only in this forest but in all the forests, and the suggestion of the Collector that they should be done away with is, in my opinion, most important. The abuse of free licenses is beyond our power to check without a much larger establishment than we have at present.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) H. R. MORGAN, Colonel,
Deputy-Conservator of Forests.

COMMISSIONER'S OFFICE,
OOTACAMUND, *20th June* 1873.

No. 57.

From

J. R. COCKERELL, ESQ.,
Commissioner of the Nilgiris, Ootacamund,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—With reference to Proceedings of the Board of Revenue, dated 8th May 1873, No. 746, Forest No. 21, calling upon all Collectors in charge of forests to send their reports on the administration of forests for 1872-73 as soon as possible, I have the honour to state that no report is due from me for 1872-73, as Colonel Morgan informs me that the Segur forests having been, during the past year, under the jurisdiction of the Collector of Coimbatore, the report of that portion of his charge Colonel Morgan proposes to send to that officer.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. R. COCKERELL,
Commissioner of the Nilgiris.

SALEM COLLECTOR'S OFFICE,
3rd September 1873.

No. 260.

From

F. PRICE, Esq.,
Acting Collector of Salem,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to enclose, with the necessary statements, the report of the Deputy-Conservator of Forests upon the administration of his charge during the year 1872-73.

2. As the forests passed under the control of the Collector in October last only, and as this is the first report which my department has been called upon to submit, I feel it rather difficult to determine upon what points I am required to touch.

3. Mr. Brougham's letter is a very full one, and treats, to a great extent, of transactions of which I have no knowledge except by hearsay. Other matters have been dealt with in letters written by me from time to time to the Board of Revenue.

4. *Inspection Tours.*—I presume that the Collector, in his capacity as Conservator, should, when his other duties will permit, make inspections of the forests in his charge. Mr. Longley, I believe, made none. As Sub-Collector, I, in October, examined the Melgherry Hills and the ranges at the back of them, with a view to the preparation of a scheme for the purpose of demarcating the forest. I also inspected the site of the proposed Sandalwood plantation at Kanavainagasundaram and the Tumbakovai and Anebiddamadagu valleys. The Melgherries and adjacent hills are pretty well worked out, and it will take years before the young forest now springing up will be fit to cut. In the Tumbakovai valley there is a dense jungle of bamboo of the finest quality, and in the Anebiddamadagu valley and on the surrounding hills there is any quantity of splendid timber. There are no roads by which to get the latter out, but as I have already stated in my enclosure to the Budget measures are being taken to remedy this defect.

Mr. Brougham has, in spite of bad health, moved about a great deal, and done much in the way of improving the working of the jungles, and what is in my eyes of more importance still has succeeded in allaying, to a very great extent, the ill-feeling which was formerly entertained by both the ryots and hillmen towards the Forest Department. I consider that he has done very good work, and that he is an able and extremely painstaking officer. As regards the remarks made in the section of the Deputy-Conservator's letter relating to inspections, I have the following observations to offer :—

(1.) Inquiries are now being made and information collected with a view to determine whether some restrictions should not be placed upon the present system of ponnakadu (hoe) cultivation on all the hills of the district.

(2.) Inquiries will be made and orders passed regarding the encroachments of the Muttadar of Neyamalai on the Peria Kulroyans.

(3.) The question of renting the Chinna Kulroyans is under consideration, and when I next visit the Ahtur Taluq I shall do my best to bring the matter to a conclusion.

(4.) Arrangements have been made for the planting and up-keep of the Kanavainagasundaram Sandalwood plantation; and the bandy-track to which Mr. Brougham refers is being repaired and improved.

(5.) The question of utilizing the Thuringi forests along the banks of the Kaveri and Toppoor rivers for railway fuel will, I hope, be gone through and settled during the current year. My view is to work them for the greater part *viâ* Toppoor, which I consider the easier and least expensive route.

(6.) The depôt system of working bamboos is being gradually introduced. I fear, however, that the cost of cutting and storing seeding bamboos in any quantity for future use, though it would

undoubtedly prove remunerative, would be so great that the charge would not be sanctioned. The depôt system works well, but there is, as it is something new, a good deal of opposition to it. This will no doubt wear off, as it did in the case of timber, as time goes on.

(7.) The dispute regarding the Kadathur Mutta boundary is now in the hands of the Director of Revenue Settlement.

SECTION II.

5. *A, Reserved Forests.*—The two ranges of Denkanicottah and Tripatore were both worked satisfactorily by the officers in charge of them. The want of roads has impeded the transport of timber to the depôts, but there is every hope that by next year there will be a considerable improvement in this respect as well as in the collection of forest-products.

The contemplated operations for the coming year have been entered into, as far as they could be, by me in the letter on this subject, which accompanied the Budget for 1874-75.

B, Fuel Reserves.—Regarding these I have no remarks to offer. They appear to be carefully looked to. I approve entirely of Mr. Brougham's allowing grazing and the removal of dead wood in railway fuel reserves under the restrictions imposed by him.

C, Plantations.—The plantation on the Shervaroy Hills is a failure, and I do not think that it is worth the spending of any more money upon it. My observation of it about a year ago quite bears out Mr. Brougham's remarks. Goondalur (Goondur) where another plantation is proposed is about half way up the Shervaroys, sheltered, has good soil, and is well adapted for the purpose, I have no doubt that both Teak and Sandalwood would succeed there. I think that the *Cassia florida* would grow well at Putchoor. It makes admirable household fuel, grows rapidly, and has the merit of, when cut down, springing up again.

Another attempt will be made with the Yellagherry plantation. If it again fails, it should be given up as the climate is very feverish.

SECTION III.

6. *License and Voucher Forests.*—The gradual introduction of the depôt system, which will be still further extended this year, will, I hope, cause a diminution in the number of licenses issued. Those to be granted free to the forest and agricultural population must, of course, remain, but I would like to see those on payment entirely put an end to. They and fires are the bane of the forests.

SECTIONS IV and V.

Yield of Forests and Financial Results.—The falling off in the revenue derived from the forests during the year under report was really only Rupees 7,713-5-6, and I think that Mr. Brougham has satisfactorily accounted for this. The receipts notwithstanding were in excess of the estimate.

SECTION VII.

General Remarks.—I have nothing to add to Mr. Brougham's observations under this head.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) F. PRICE,
Acting Collector.

[Enclosure 1.]

Salem Deputy Conservator's Office,
6th May 1873.

From
J. B. BROUGHAM, Esq.,
Acting Deputy-Conservator of Forests, Salem,

To
The Collector and Conservator, Salem.

Sir,—I have the honour to submit the Annual Report, together with the usual accompaniments, of the Salem forests, of which I have been in charge throughout the year.

SECTION I.

Inspection Tours.—Having suffered severely from fever in April, I was unable to spend more than eight days in the district, during which time I was engaged posting peons for the protection of the Government jungles adjoining the Vellacooty Jaghire. In May I inspected the plantation on the Shervaroy Hills and the reserves, the Baloor, Thoombul, Pethinaikenpolliem, and Ahtur Tannahs, and the Urunth and Peria Kulroyan Hills, on the latter of which I spent four days. In connection with my visit to this place I noticed most jungle on the slopes and upper knolls. The table land and valleys on the hill were being extensively cultivated by the Mullialies under the ponnakadu system. The general character of the jungle is straggling, and of the description of timber I chiefly observed Karangally, Parambay, Nummai, Kurrypillay, and Thuringi. Descending the hill through the village of Shengadapoothoor I noticed that the storm of the 2nd had done great damage in the jungles. Several clumps of bamboos and trees and saplings of different description of timber had been blown down, and in the valley to the right of me the damage I observed was much more. On the slopes there were some finer large Neem and Karangally trees blown down, which would have made excellent logs or planks. I endeavoured to get the timber out, but from its position it was impracticable to do so ; and to have had it sawn into small dimensions and brought out would have cost more than the wood was worth. On the day of the storm I was on the Shervaroys on a visit to the plantation, and although the Ahtur and Salem ghauts and the jungles in the Periacombay direction suffered to some extent, the plantation was only slightly damaged. Several cattle in and around Yercaud and on the ghauts died from the severity of the weather. Eleven to twelve inches of rain was, I believe, registered on the first day, and on subsequent days between seven to nine inches. In my visit to the Peria Kulroys I observed some boundary stones and a clearing along the slopes nearly up to the top of the hill, and on inquiry ascertained that it was an encroachment by the Muttadar of Neyamallai. The Tahsildar of Ahtur hearing of this before my visit to the place prevented the Muttadar accomplishing his end, which was to have incorporated these slopes with his lands. Having been taken bad with fever I was unable to prolong my inspection of these hills and the Chinna Kulroyan Jaghire, but from what I saw of the latter a lease is desirable. The jungles on the slopes of the hills, I believe, belong to Government and the upper forests to the Jaghiredar. Timber cut in the Jaghire lands has, in consequence, to pass through the Government jungles and if it is more convenient to obtain the wood from the latter place, it could easily be done either with or without the complicity of the Tannah peon. In the latter case, the wood is, of course, covered by a Jaghire pass. The Chinna Kulroyan Hills have now passed into the hands of a new lessee, Soobramanien Chetty, who holds it on an agreement for twenty years. The seigniorage levied on timber by the contractor is about one-half or a third below the Government rates. In June I inspected all the tracts from which the Railway Company were being supplied with wood fuel, the jungles bordering on the Kadthoor Mutta and the Mullapooram plantation. In the last named I spent more than a week superintending the thinning of the trees and other work connected with the improvement of the plantation. In my inspection of the tracts from which the Locomotive Department of the railway obtain their fuel, I had occasion to find fault with the contractors for only removing the branches of the trees and allowing the trunk, which, in many cases, would at least yield a bandy-load of fuel, to remain in the jungles. As a rule, the trees were to be felled three feet from the ground. To produce fine coppice it is necessary to cut the trees down to the ground and under, with a view to raise new roots, etc. In this country, however, it is attended with some drawbacks, the most formidable being the grazing down of the same by cattle and goats before the shoots come to any maturity for felling.

On the 12th July I met the Assistant Collector at Vadavumputty in the Salem Taluq, Womalore Division, for the purpose of forming three new reserves. This work occupied some time in consequence of our having had to change the boundary of the Ammanary reserve three times. In August I visited the Periacombay jungles and superintended the transplanting of some plants in the plantation of Mullapooram. In September I held auction sales of timber at Tripatore and Vaniembady, and afterwards inspected the Putchoor plantation, the Poodoor

reserve, and the jungles adjoining the limits of the Kangoondy Zemindar, and inspected and handed over a new block of jungle to the contractor supplying the Jollarpett Station with fuel. In October I visited the Ammanary, Kooriap Combay, and Pellapully reserves, and camped for nine days at Mullapooram for the purpose of superintending the operations in the plantation and of inquiring into certain complaints against the Overseer Mr. Coxe.

In November I again visited the Ammanary reserve with a view to investigate the complaint of certain villagers against the contractor who, it was alleged, had fenced in more jungle than was really handed over by the Assistant Collector, and travelled through a portion of the

The expenditure on the whole has been Rupees 1,709-5-3, or timber Rupees 848-5-3, Sandalwood Rupees 818-8-0, and forest-products Rupees 42-8-0.

Tripatore.—The forests of this range have been in charge of Mr. Franklin, and during the year there were felled timber cubic feet 5,716-7-5, Sandalwood maunds 164, lbs. 23 ; Kuply maunds 41, lbs. 7½ ; Bees' wax lbs. 21 ; Honey maunds 7, lbs. 16 ; Gall-nut maunds 132, lbs. 10.

Çontemplated Operations.—The contemplated operations are to fell and remove to depôt timber, Sandalwood, etc., according to the requirements of the market and the yield of the forests. The construction of a new ghaut in the Denkanicottah Range in place of the old one and opening new and repairing old roads to facilitate the working of different forests.

B, Fuel Reserve.—These were, for a short time, under the charge of Mr. Coxe, but as he did very badly, his services were dispensed with by the late Collector and Conservator, and they have since been superintended by Overseer Appavoo Pillay.

During the year there were 713 plants put out in the A, Reserve, besides about 9 acres of land ploughed up and broadcast with Babul, and 208 yards of stone fencing repaired. The plants put out are in fair condition, and the broadcast sowing has partially succeeded. The high grass in the reserve threatened much damage in case of a fire, and as it would have taken a large sum of money to keep the same down by cutting, I, in consultation with the Assistant Collector, permitted cattle to be grazed in it during the year, and I have not been disappointed in the immeasurable good it has done. The ryots of the nearest villages only have been permitted to graze their cattle within the enclosure, and Mr. Knox was so good as to give an Isthiarnamah in the villages of Vadavumpatty and Kanavapoothoor, and to publish certain rules for the information of the ryots who availed themselves of the advantage opened to them. There was a clause or condition in the rules holding the people answerable for any damage, and that cattle should only be driven in and out of the gateways, and that no knives should be carried into the reserve. There were a few transgressions during the year, but as the Forest Department were prompt in bringing these cases to the notice of the Assistant Collector, that officer made the people feel that he would not take a lenient view of the offences, and intimated to them that if it continued the permission would be withdrawn. This had a very practical effect ; and, in a few days, the breaches in the fence were repaired, and since there has been nothing to complain of. Several bandy-loads of dead wood were removed out of the reserves by the Fuel Contractor of the Salem Taluq. This was the only remedy left open, by which I hoped to get rid of all or a portion of the useless wood, as I found that, if it were done departmentally, there would be no market for it (the ryots refused to buy it), except it was carted to Salem, and then the price may not have covered the cost of collecting and carriage. There may be some objections to allowing the contractor into the reserve for fear of the damage that may be committed by his people ; but as I make the reserve watcher accompany the cartmen and allow no knives into the reserve, and the wood to be picked up and brought out of the fence and then chopped and put into the bandy, there can really be no reason for alarm. The bamboo jungles on the slopes of the hill east of the Vadavumpatty village spontaneously took fire last month (March), but as the grass in the reserve was well eaten down by cattle, there was no damage to complain of. Expenditure has been Rupees 157-1-8.

In the B, Reserve there were 280 chains of channelling excavated and sown up with Babul, besides 600 pits dug and planted with different descriptions of trees. The measures adopted for the improvement of this reserve have not all proved favourable. The seeds in the channels germinated badly ; but the condition of the transplanted trees is favourable.

The expenditure during the year has been Rupees 309-10-8.

C, Reserve.—This includes the land known as the Mullapooram plantation. During the year there were 40 acres ploughed up and broadcast with Babul, 258 chains fencing repaired, and about 3,385 plants of different descriptions planted out in pits. The broadcast sowing has succeeded very well, but among the transplanted trees for the past two months there have been many casualties. I had hoped to have brought 100 acres under the plough during the year, but there was some trouble in obtaining the services of ploughmen, and it was only very late in the season that I succeeded in hiring a sufficient number to plough up the 40 acres alluded to above.

jungles on the Harroor side. At the request of the Collector and Conservator of Forests on the 6th December I proceeded to Oossoor, and was engaged there with that officer for some days discussing forest matters ; afterwards I proceeded to Denkanicottah and inspected the timber yard and office of the Overseer, the Senjeeveramanoor Sandalwood tract, and a few sites selected for a Sandalwood plantation at Kanavainagasundaram and Samy Yaree at the foot of the Melgherry Hills. On my way to the above places I saw a portion of the Namasoondrum and Curculnuthum Agraharams. The land I inspected at Kanavainagasundaram was by far the best adapted for the description of plantation we intend to start and the natural growth of Sandal was far in excess of that seen at Samy Yaree. There, however, appeared to me to be more difficulty in the way of procuring water, but as wells might be sunk anywhere in the land, it has been taken up in preference to the other tract ; at the same time, I considered the advantages of a good road to the Melgherries. At present there is only a rough bandy-track, very difficult to get over, and I would, therefore, request your favourable consideration to my suggestion contained in letter No. 223, dated 27th January 1873.

From the 15th to 30th January I travelled through the Munjavaudy and Pulliputty forests, and the Sholapady jungles on the banks of the Cauvery. This visit was made with the express purpose of seeing if the Thuringi jungles near the Sholapady village, and here and there along the banks of the river, could be worked within certain rates so as to supply the Railway Company with fuel. There is a good road from Womalore to Maichary, a distance of 11 miles ; but up to the river there is no road at all, except a rough foot-path. The country about here is very undulating and mountainous, and the Thuringi tree is most plentiful in the deep hollows and little hills. To utilize the wood, it would be necessary to construct one main road, about 10 or 11 miles long, from Maichary to Sholapady, and several minor ones from different points on the principal road to the jungles which would cost a large sum of money ; but I am doubtful if the yield from the timber would compensate or in any way make up for the outlay. The wood, in close proximity to the river, might be floated to Erode, but it is unadvisable at present to attempt it until the scarcity is felt of obtaining this article in the vicinity of the line, and until it becomes necessary for the Railway Company to offer rates in proportion to cost.

In February I accompanied the Collector and Conservator to the Shervaroys, and availed myself of the opportunity of pointing out how, in a few years, the scarcity for bamboos would be felt in the district in consequence of that article seeding so freely, and suggested that the same may be immediately brought under the depôt system, which would prevent any indiscriminate felling, and, at the same time, injury to the jungles. The Conservator having fully seen the necessity of this measure, has permitted me to work the jungles in the Salem Taluq departmentally. It is proposed to introduce the same course in the other taluqs, and to cut as much of the seeding bamboos as possible, and to store them with a view of meeting coming demands. In this month I also inspected the Yairymullai jungles and the jungles of the Kadathoor Mutta. The Muttadar of this place has apparently encroached on one of the slopes of the Shervaroys and included about 6 square miles of land in his Mutta estimated, at the lowest, at Rupees 30 per acre. I have brought the circumstance to the notice of the Collector, and have reason to suppose that the matter is forming the subject of an inquiry.

In the month of March I inspected the jungles near Cadiambutty and the Javadi Hills. Having got a few attacks of fever at the last-mentioned place, I could not bear exposure, and was

obliged to return to Salem. At Allengayem, Perioor, and the adjacent villages in the plain and all the hill villages numerous deaths occurred from fever, and since the Head Assistant held Jammabundy at Allengayem, medical assistance has been provided for the relief of the sufferers.

SECTION II.

A, Reserved Forests. *Denkanicottah.*—Overseer Mahomed Ally has continued in charge of this range during the year, and I have much pleasure in stating that he has conducted the duties in a most efficient and painstaking manner. During the year there were felled and stored cubic feet 2,108-9-10 of timber and maunds 2,249 lbs. 21½ Sandalwood, besides the under-mentioned forest produce :—

Kuply dye lbs. 1¼ ; Puply maunds 12, lbs. 8¼ ; Bees' wax maund 1, lbs. 18 ; honey maunds 8, lbs. 18¾ ; Gallnuts maunds 10 ; and Seeakoy maunds 3.

Ammanary Reserve.—The jungle out of which this reserve was carved is situated in the middle of a plateau, about 6 or 7 miles from the Ahtur Railway Station; and contains about 1,280 acres. The expenditure incurred on the same during the year has been as follows:—Stone-wall fencing Rupees 658-4-0, pay of watcher for six days in February 1873, Rupees 1-4-7.

Pellaputtgcombay.—This reserve opens to the south-west of the Ahtur ghaut, and is, in extent, nearly 4 square miles. Situated as it is in a ravine, it needed no fencing beyond a ditch or wall across the mouth of the valleys.

Kooriapoocombay.—This tract is situated about 7 miles south-west of the Mullapooram station, and runs some distance into the hill, and is, in extent, about 3 square miles. This and the above reserve were fenced during the year, but as I was not satisfied with the work, payment for the same was withheld till the contractor altered the defects pointed out. The expenditure on the two during the year is therefore *nil.*

C, Plantation. *Shervaroy Hill.*—This plantation has not been extended during the year, but the condition of the trees planted in previous years were duly attended to, and were weeding, etc. No improvement is noticeable, and nearly all of the plants are stunted, some having been attacked by the Goatmoth. The Eucalyptus, however, flourished nicely and blossomed in January. The Belgaum Wallnuts also have grown well, and seem adapted to the soil. In the current year I purpose growing some Teak and planting it about Goondaloor, where I have reason to believe it will take.

Putchoor.—This plantation is situated in the plains between the stations of Jollarpett and Coopum on the Bangalore branch. Although during the year the whole of the land was ploughed up and broadcast with the Babul seed, still I regret to say its condition has not improved to any appreciable extent. The seeds germinated very well, but whether from the heat or other causes the plants began to die out I am unable to conjecture.

Mullapooram.—I have dealt with this plantation under C, Reserve.

Yellagherry.—During the year a small Sandalwood plantation was started on these hills in the Tripatore Range. Four thousand pits were dug and planted up, but as it was difficult to obtain labour to water the plants, and the Overseer did not give it the attention he might have done, it has not succeeded so well as my expectations led me to anticipate. A great many casualties occurred, but I hope to have these re-placed. The surviving plants average in height 4 to 6 inches.

A Sandal nursery was also started during the year in the Denkanicottah Range, with a view to improve the Senjeeveramanoor tract. A piece of land has been taken up at Kunavainagasoondaram at the foot of the Melgherry Hills for the purpose of opening out a plantation, and operations will soon commence. With a view that the plantation should be started on some principle, I sent the Overseer to Coimbatore for the purpose of visiting some of the plantations under Colonel Morgan's charge, and seeing the method of planting pursued by his Overseers. This plan will not be without results, as Mr. Mahomed Ally is an intelligent and painstaking man, and will be sure to profit from his visit to that place, and in this Overseer's hands I am pretty confident of the success of the undertaking.

SECTION III.

License and Voucher Forests.—The subjoined statement exhibits the removals under licenses and free in the Denkanicottah, Tripatore, and Salem Ranges during the year :—

Divisions or Range.	On License.						On Free Passes.			
	Cubic feet of Timber.	Bandy-loads of Charcoal.	Bandy-loads of Bamboos.	Bandy-loads of Barks.	Bandy-loads of Firewood.	Tons of Engine-fuel.	Cubic feet of Timber.	Bandy-loads of Firewood.	Bandy-loads of Bamboos.	Bandy-loads of Charcoal.
Denkanicottah ...	10,400	210	4,612	162	2,799	.....	21,024	2	472½	.....
Tripatore	22,216	400	2,454	278	7,046	Tons. lbs. 4,802 1	27,360	.....	756	.....
Salem	17,784	1,379	4,489	48	6,543		5,200	.....	171½	.....

SECTION IV.

Yield of Forests.—In addition to the above, the yield of the forests during the year has been as follows :—

Name of Range.	Timber.			Sandal-wood.	Firewood.		Bamboos.		Charcoal.		Barks.	Forest Produce.
	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	On License.	Free.	On License	Free.	On License.	Departmentally.
	C. FT.	C. FT.	C. FT.	MDS. LBS.	TONS. LBS.	TONS.	BANDY-LOADS.	BANDY-LOADS.	TONS.	TONS.	BANDY-LOADS.	MDS.
Denkanicottah...	2,108-9-10	10,400	21,024	2,249-21½	1,250-8	⅔⅝	4,612	472½	93¾	...	162	35-21½
Tripatore.	5,716-7-5	22,216	27,360	164-23	3,146-8	...	2,454	756	178¼	...	278	182-4½
Salem ...	.....	17,784	5,200	.....	2,920-0	...	4,489	171	615⅝	...	48	.....

SECTION V.

Financial Result.—The financial results for the year, Rupees 64,233-12-4, being Rupees 16,269-11-6 less than last year, and Rupees 4,233-12-4 above the estimated return or Budget-estimate. Rupees 3,556-6-0 being the value of 1,087 maunds 22 pounds of Sandalwood has not been credited in the accounts for the year, as the money was paid into the treasury by the purchaser of the wood at the end of March, and consequently could not appear as an item in the year. The receipts for this year would have been quite as satisfactory as 1871-72, but as the Railway Company withdrew taking fuel from us for some months, revenue between Rupees 8,000 and 9,000 was lost to the department.

SECTION VI.

General Remarks.—During the year there were four timber depôts established in the Tripatore Range, and the timber felled and stored amounted to cubic feet 5,716-7-5, value Rupees 4,419-0-2 ; the sales, cubic feet 3,435-10-2, value Rupees 2,883-4-2.

In the Denkanicottah Range, the timber receipts were cubic feet 2,108-9-10 ; sales cubic feet 2,944-8-2, value Rupees 2,651-10-5, of this quantity Remount Agent received cubic feet 230-1-10, value Rupees 188-9-8.

With a view of clearing much of the dead firewood in the forests which aggravates, to a great extent, the annual fires in the jungles, I, in consultation with the Collector and Conservator farmed the same during the year under review. The right in the different taluqs were sold separately and realized as follows : Salem, Rupees 2,245 ; Tripatore, Rupees 707-8-0 ; Uttenghiri,

Rupees 105 ; Kistnagherry, Rupees 40-8-0 ; Oossoor, Rupees 293 ; and Darampoory, Rupees 302. In the agreement a clause is provided binding the contractors to sell bandy-loads, bullock, and ass-loads at certain prescribed rates. This was done with a view that the contractors would not impose on the poorer classes and collect money from them more than the article was worth, and what it used to realize before the contract system. Bamboos during the year were brought under the depôt system.

This was done in view of a double purpose ; the first to protect the jungles from injury, and second to utilize the seeding bamboos which must otherwise decay in the forests. Under the license system efficient control could not be exercised over the people, and it would have been a matter of considerable difficulty to induce them to fell only the seeding articles.

Forest Offences.—236 cases occurred during the year, out of which there were only 28 acquittals.

Conduct of Establishment.—With a few exceptions, the conduct of the establishment has been good.

Health of Establishment.—Fever was more prevalent and severe during the year under review than in previous years but no deaths occurred.

I have collected and dried flowering specimens of different trees and shrubs, and have a pretty large collection of seeds and gums for office specimens, as well as for supplying the Mauritius and other Governments. I am also adding to my specimens of woods, and shall endeavour to make the collection of each kind complete by preserving the flowers, gums, seed, fibre, bark, etc., pertaining to each variety.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. B. BROUGHAM,
Acting Deputy-Conservator of Forests.

SOUTH CANARA COLLECTOR'S OFFICE,
MANGALORE, 13*th August* 1873.

No. 1,315.

From

H. S. THOMAS, ESQ.,
Collector of South Canara,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—With reference to the Board's Proceedings, dated the 8th May last, No. 746, I have the honour to submit herewith my Deputy Mr. Cherry's report on the administration of the Forest Department of this district during the past official year 1872-73, accompanied by the prescribed annual statements.

2. *Supervision.*—It will be observed that the district was long without a Deputy-Conservator.

3. *Revenue.*—The falling off in the anticipated revenue, arising from the Public Works Department having purchased sawn timber in the Malabar market, is highly unsatisfactory. I cannot see that there should be any difficulty in giving the Public Works Department sawn timber if they prefer it instead of rough logs, and arrangements must be made for its being properly seasoned. I have instructed Mr. Cherry to give his attention to these points. I have already

placed at his disposal a part of the Mangalore quay to be used for timber depôt, and will add to it by annexing a portion of the adjoining private ground which cannot at present be purchased, the right of ownership being in dispute between certain parties who have resorted to a Civil suit to settle it.

4. *Timber Expenses.*—All work connected with the dragging, etc., of timber is at present done by hired elephants and cooly labour, and the system of contracts has not yet been tried. Major Beddome specially advised this during his tour in this district; but Mr. Cherry states that the elephant owners could not be persuaded to take up contracts. I have, however, no doubt that if the Forest Department exerted itself properly, and somewhat liberal rates were offered at first, persons could be found willing to execute forest work on contract. I have already instructed Mr. Cherry to try the system, and the Tahsildars have orders to give their assistance in procuring contractors.

5. *Depôts.*—Regarding timber depôts required at the marginally noted places, I am only awaiting Mr. Cherry's report as to the particular sites wanted, and if Government ground is available in each case. If no Government ground is available, I have desired him to ascertain, in communication with the Tahsildars, the probable cost of acquiring private land, and the subject will be disposed of on receipt of his report.

Kasargode. Pane-Mangalore.
Kallyanpur. Kundapur.

6. Planting operations were carried on on a small scale, and confined to putting down 22,280 Teak seedlings in the vicinity of the Parapa plantation in Kasargode. The nursery for a Casuarina plantation alluded to in paragraph 16 of Mr. Cherry's letter is near Mangalore, and in proximity to the Casuarina tope alluded to in my letter to the Board, dated 10th January 1873, No. 690.

7. The financial results of the year's operations are embodied in Statement A, accompanying Mr. Cherry's Report. The total receipts from all sources amounted to Rupees 23,596-7-10, and the expenditure to Rupees 20,248-13-7, leaving a net profit to Government of Rupees 3,347-10-3. The stock of timber in hand was increased by Rupees 6,587-1-4.

8. On the subject of the revision of the Forest Establishment of this district, I have already addressed the Board in my letter, No. 1,178, dated 23rd July 1873.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) H. S. THOMAS,
Collector.

[Enclosure 1.]

Deputy-Conservator's Office,
Mangalore, 30*th June* 1873.

Report No. 332.

From

J. W. CHERRY, Esq.,
Deputy-Conservator of Forests, South Canara,

To

H. S. THOMAS, Esq.,
Collector and Conservator of South Canara Forests.

Sir,—In accordance with instructions conveyed in the Revenue Board's order, No. 746, dated 8th May 1873, I have the honour to submit, in duplicate, the Statements A, B, C, D, and E, called for, showing the results of forest operations in South Canara during the past official year. In addition, I have added further information in Statements F, G, and H, also in duplicate.

2. *Supervision.*—The first half of the year I was engaged elsewhere in the prosecution of ex-Forest Overseer Veerasawmy Pillay, and did not take up the work in my range until the middle of September last. During my absence Mr. Forest Overseer William Carroll had the charge of my Office, and creditably maintained the orders of operations entrusted to him.

3. *Tours of Deputy-Conservator.*—In October and November I spent six weeks in the Cundapur and Udipi Taluqs; in February I travelled through the Kasargode Range; and in March made a short visit to Uppenangadi.

4. *Remarks.*—The results of the year's labour are shown in detail in the several form attached, in which are also entered explanatory remarks where they would appear useful.

5. The following points regarding receipts and expenditure require to be noticed.

6. *Revenue.*—The revenue realized is below anticipations and less than the Budget-estimate by Rupees 11,400.

7. *Sales of Depôt Stock.*—This is mainly due to the fact that the Public Works Department have failed to purchase from us the timber that it was expected from their indents they would take.

They have preferred to supply themselves with sawn timber from Malabar. The amount thus lost to us is, I believe, about Rupees 5,000. We have also failed to realize, I calculate, some 5,000 Rupees on timber sales in Mangalore by having had to store our timber on the sea-side of the backwater where timber merchants and other purchasers did not care to journey. That they lacked the little energy necessary to take them over the backwater to inspect and select the timber is beyond my power of explanation; but I feel sure this has been the reason of a large loss to us, and am confident that had the timber been stored where it is at present (on the Bunder and under the notice of passers-by) we might have trebled our sales to private parties.

8. *Sandalwood Oil-still and Firewood Rent.*—Compared with last year's receipts, there is a falling off in the amounts realized under "Sandalwood Oil-still Rents" and "Purchase of Firewood for ditto" to the extent of about 1,000 Rupees under each head. This was due to my having refused to permit the working of the Sandalwood oil-stills anywhere, where facilities of carriage made it easy for the farmers to smuggle firewood for consumption elsewhere, and for other purpose than it was intended for.

9. *Catechu Jungle Rents.*—Owing to a dearth of ripe trees, there were no sales of farms for the working of Catechu jungles last year. A sum of Rupees 3,300 odd is, however, shown under this head, being the arrears collected on rents due in 1871-72.

10. *Expenditure.*—Under expenditure on conservancy and working, there is a saving of some 2,500 Rupees in the Budget-estimate. This is owing partly to a saving in expenditure on plantations, partly to a smaller quantity of forest-produce being added to stock than was contemplated, and partly, I am glad to be able to state, to reductions in the cost of operations connected with the stock.

11. *Timber Sawing.*—The operations connected with stock (besides those of felling and preparation shown in Statement B) consist of 2,530 square feet of timber sawn in the forests for convenience of carriage, at a cost of 85 odd Rupees. After considerable difficulty, sawyers were induced to work, and this, I believe, is the first success that has attended our efforts to make men saw in our ghaut forests. The timber under notice has been in the forests for years, as, owing to their great size, it was calculated to prove unremunerative to carry them to market.

12. *Timber Cartage.*—1,989 cubic feet of timber and 9,505 bamboos have been carted during the year at a cost of Rupees 640 odd. This carting has principally consisted in the removal of 1,020 cubic feet of timber from the Soolya and Parapa jungles to Pane-Mangalore, a distance of about 35 miles, at a rate of 7 Annas a cubic foot. This is the first time that carting on a large scale in this district has succeeded. The difficulty in getting contracts taken up will account for the high rate of carriage, which high rate was granted especially as an inducement to contractors to make the attempt, and with a feeling of confidence that, if only attempted, the results would prove so far satisfactory as to enable me to hold out for a lower rate

on the next occasion. Further carting operations in this year have shown that my confidence was not misplaced, as I have lately carted timber, under similar circumstances, at the rate of 5 Annas per foot.

13. *Timber Dragging.*—20,123½ cubic feet of timber and 11 boats have been dragged to rivers banks from the forests at a cost of Rupees 2,732 odd. This dragging item is always a heavy one, and adds 2 or 3 Annas a cubic foot to the cost of our timber. The work is performed by hired elephants, assisted by cooly labour. With hired elephants the work might be done at less cost, could we persuade the elephant owners to take up *contracts*; but this they won't do, and as I have no other means of dragging my timber I am in their hands.

14. *Timber Floating.*—Floating operations were restrained last year, as I wished to get coast depôt arrangements properly organized before bringing stock down. At present land for our timber depôts has only recently been handed over to us at Mangalore and Uppenangadi. There are still depôt requirements to be satisfied at Kasargode, Pane-Mangalore, Callianpur, and Kundapur. The expenditure in floating was Rupees 767 odd, of which the amount spent in carriage of timber alone averaged between 3 and 4 Annas per cubic foot for carriage to the coast. This item is also a heavy charge on the cost of our timber operations, but is reasonable if the difficulties arising from the ill-adapted nature of the rivers within and for some way beyond the ghaut forests is taken into consideration. If we can persuade contractors to take up the work, and they after a time get accustomed to it, we may hope to reduce the cost of floating.

15. *Cattle.*—Four pairs of bullocks have been added this year to the cattle stock at an average cost of Rupees 102 a pair.

16. *Plantations.*—Operations under plantations have been as follows :—

22,280 Teak seedlings have been set out in the Parapa neighbourhood in clearings prepared the year before, and further clearings and pits have been arranged for the reception of some 15,000 more plants this monsoon.

200 failures in the plantation near the Parapa, but have been made good, and the plantation weeded, thinned, and pruned.

A nursery for a Casuarina plantation on the sea coast near Mangalore was started, and has turned out some 9,000 healthy plants which are now being set.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. W. CHERRY,
Deputy-Conservator of Forests, South Canara.

MALABAR COLLECTOR'S OFFICE,
TELLICHERRY, *22nd August* 1873.

No. 201.

From

A. MACGREGOR, ESQ.,
Collector of Malabar,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to submit my report on the administration of forests in this district for the official year 1872-73, in conformity with the Board's Proceedings, dated 8th May last,

No. 746, and to forward herewith the reports of the forest officers of the respective ranges, with their accompaniments, as directed in the 3rd paragraph of the order above alluded to.

2. The general control of the Malabar forests was assumed by the Collector from the 1st October last.

They consist of the ranges known as Nilambur, Wynaad, and Chenat Nair.

3. The Nilambur forests consist of certain tracts, measuring 13,703 acres, leased perpetually from certain Hindoo land-owners in 1840, the forests being at the time exhausted. Year by year the natural forest has been felled and planted up with Teak. The area was in 1871 increased by the purchase of a block of 624 acres, and during the year under report the purchase of 4,200 acres of additional natural forest was effected, and 88 acres of plantation, raising the total area to 18,615 acres, of which, including the planting of 1872, 2,790 acres are planted with Teak. Having been carefully nursed for many years and being traversed in all directions by navigable rivers, the natural forests now yield a fair annual revenue from timber, not first class but of fair quality. It is sold in the Calicut market for shipment to Bombay, Arabia, and the Persian Gulf.

4. The sale of thinnings removed from the plantations yields a considerable and increasing source of revenue, and bamboos, which are necessary for the rafting both of timber and saplings, realize a fair amount when afterwards disposed of at the market depôt.

5. The survey of this range was completed and maps lithographed this year.

6. The Wynaad range consists of three natural Teak forests running along the Wynaad frontier, one north and two south of Manantoddy.

The title to these forests accrued to Government owing to the rebellion of their Hindu owner at the end of last century.

7. These forests contain Teak of splendid growth, but difficult to carry to market. This season, for the first time, advantage has been taken of the improved cart-roads to the coast to send Teak from the northern forest to the Tellicherry market.

The experiment has succeeded, and promises to improve considerably the financial position of the range.

The southern forests are worked to Mysore,—a difficult undertaking, as the logs have first to be carted, then floated, and then carted again.

8. Some other tracts of Government land in Wynaad which produce cardamoms have been taken in hand, and, it is expected, will shortly yield a fair revenue.

The forests in this range have never been surveyed. They are of great extent.

9. The Chenat Nair forests consist of certain escheat lands in the vicinity of Palghaut. They are sufficiently near to the line of railway to be considered as sources of fuel-supply for locomotives.

A little planting has been carried on, but is so far reported a failure. During this year the range was added to by purchasing a block of land from a private individual, measuring 1,800 acres, and well adapted for the growth of fuel. The forests and firewood blocks will, in future, be styled the "Palghaut Forest Range". The tract is well within the monsoon, and I consider that planting is a needless expenditure of money, and that by fencing and strict preservation a large supply of firewood, at a very low cost, will result from spontaneous growth.

10. It is proposed to copse by compartments, leaving the Teak, of which throughout there is a fair sprinkling, as standards. The demarcation and survey of this forest range is an operation of most pressing necessity.

11. The range, as above described, has hitherto been amalgamated with two forests and a fuel reserve of the Coimbatore District, and the accounts are not so prepared as to admit of the respective expenditure and outlay on each being arrived at. The proper accounts, therefore, of this range will date from the current official year, and nothing can be inferred from the figures introduced into this report.

12. The total expenditure on the forest ranges amounted to Rupees 43,975 as shown in the margin. The increase in Nilambur under Establishment is due to the fact of a Probationer having been attached to the range as a supernumerary, and under Working Charges to the large area planted this season. The working charges are heavy under the system pursued, which is to fell, float, and cart all timber to the market depôt. The expenses might be indefinitely reduced either by selling to merchants in the forest or selling the trees as they stand; but under such a system the Government profit would be much diminished in addition to other disadvantages. If, however, the Budgets are to be cut down as they have been in the current year, there will be no alternative, and it will be necessary to curtail planting operations as well.

No.	Forest Ranges.	Establishment and Contingencies.	Working Charges.	Total.
		RS.	RS.	RS.
1	Nilambur	9,270	17,041	26,311
2	Wynaad	6,955	4,189	11,144
3	Chenat Nair ...	1,709	4,811	6,520
	Total...	17,934	26,041	43,975

13. From the marginal statement, it will be seen that the total receipts of the three ranges was 41,428, from which must be deducted a diminution in stock of Rupees 14,067, leaving a net earning of Rupees 27,361. The excess expenditure over income for all the ranges is thus Rupees 16,614. In regard to the Nilambur and Chenat Nair forests, both *planting* forests, the deficit is balanced by a prospectively enhanced revenue. In Wynaad there is a net profit of Rupees 72.

Ranges.	Timber Sales.	Miscellaneous.	Total.	Difference in Stock.
	RS.	RS.	RS.	RS.
Nilambur	*17,139	6	17,145	— 2,277
Wynaad	21,599	1,844	23,443	—12,329
Chenat Nair	840	...	840	+ 539
Total..	39,578	1,850	41,428	—14,067

* Including Rupees 7,630 from saplings.

14. The profit has been computed in the old system of valuing stock, which alone appears reliable for arriving at the financial results of a year's operations.

The new system under which it has been ordered that stock should be valued, viz., according to the expenditure on it, may have its uses, but under it the stock account no longer furnishes any true criterion as to the success or otherwise of operations.

Two logs lying in the market depôt of equal value stand in the accounts at greatly varying rates, according as they happen to have been growing near or far from water carriage, etc.

The unsatisfactory result in Wynaad, where a larger income might have been expected, is, in my opinion, to be attributed to the fact of the forest having been for many years worked carelessly, unskilfully, and at times dishonestly. Matters cannot come right all at once. Under the able and energetic management of Mr. Peet, there is every reason to anticipate greatly improved system, which, in a year or two, will be indicated by increased profits.

15. Having given a general view of the forest operations of the district, I now proceed to review the reports of each range in detail.

16. Nilambur Timber from natural Forests. *Felling.*—The Deputy-Conservator having been absent on leave at the beginning of the year, the management was undertaken by the Collector, so that the new system may be regarded as having been practically in effect in regard to this range throughout the year.

The number of logs felled was 530, of which 312 were Teak. The market for the inferior timbers having declined, and the result of the previous year's operations in regard to such timber having been unsatisfactory, and the stock in depôt being large, only a small quantity was felled. The logs felled were valued at Rupees 5,825.

17. *Floating.*—Logs to the number of 1,057 were floated to the coast depôt. This included nearly the whole stock of timber felled early enough for the floating season. Some 120 logs of superior Teak could also have been floated had not funds run short. This is not to be regretted, as this will enable us to supply the Department Public Works with some good seasoned Teak this year.

18. *Sales.*—The market depôt was pretty well cleared out, 990 logs having been sold, measuring 19,124 cubic feet, realizing a price of 7,806 Rupees. A further sum of Rupees 1,703 was obtained by selling the 20,276 bamboos used in floating the timber. The market was, on the whole, good, and a sum of 1,509 Rupees was realized in excess of the nominal value of the stock sold. The stock account has been adjusted by deducting the amount of sales less this sum. The financial results, as detailed further on, show an apparent loss of Rupees 1,511. This, however, is explained by the fact that the full market depôt value of the stock brought forward from last year is entered, whereas the stock was lying in the forest depôt and had to be floated to market depôt.

19. *Plantations, Extension.*—The unhealthy character of the site of planting operations in 1870-71 and 1871-72 having led to the planting of diminished areas in those seasons, it was resolved to plant a large block of the land at Chatamboria purchased in 1871. The estimated area planted was 235 acres and the number of seedlings set out was 235,000 by far the greatest number ever planted in one season. The result has been to bring up the average yearly extension of the last twelve years to the regular amount of 100 acres. The soil proved first rate, and the season was favourable for the growth of the seedlings. The only drawback experienced was that, owing to unseasonable and heavy rain-fall in the beginning of May, the growth of weeds, creepers, and grass was promoted, and the task of preventing the seedlings over such a vast area from being smothered by their luxuriant growth was difficult and expensive. The planting was inspected by me a fortnight ago, and the seedlings found healthy and vigorous.

20. *Conservancy of existing Plantations.*—The aggregate area of plantations to be cared for was 2,702 acres. Pruning and thinning have been properly carried out, and creepers and parasites removed, and fire tracing efficiently performed. The only plantations which are somewhat over-run are those at Nellikutta. The area is so small that it is not worthwhile to subject the establishment and coolies to the injurious effects of the climate in the manner that would be necessary if these plantations were thoroughly conserved.

21. *Sale of Thinnings.*—The stock of saplings in hand at the beginning of the year is shown as 10,004, valued at Rupees 5,003. The number of saplings felled during the year was 13,058, valued at Rupees 6,529. During the year 11,229 were sold, which realized Rupees 7,379, and the balance in hand numbered 7,333, valued at Rupees 5,953. These figures are inconsistent, as according to them the number remaining in stock should be larger and the value less. It is believed that the opening balance included 4,500 saplings, which were too small to be saleable, and should have been excluded. The excess value is probably owing to the sales realizing more than estimate. A reference has been made to the Range Officer.

22. Of the working charges a sum of Rupees 10,062 is debited to plantations. To show the financial result of the year in regard to the existing plantations, it is clearly necessary to eliminate altogether the expenditure in opening a new plantation. The establishment charges must also be distributed between the existing plantation, new plantation, and natural forest operations. It would, I think, be a fair proportion, looking at the relative magnitude of operations for the year in question, to assign half the establishment to existing plantations, three-tenths to extension, and one-fifth to natural forest.

Though the expenditure under the last head is large, a good deal is paid to floating contractors, and there is not much labour to supervise. Including supervision, it has been estimated that planting costs 30 Rupees an acre. Taking these data, the result is as follows :—

EXISTING PLANTATIONS.

Expenditure.

	RS.
Establishment, half	4,635
Miscellaneous, *i.e.*, tools, rent, etc.	512
Working charges	5,793
Total...	10,940

Receipts.

		Rs.
Sale of saplings		7,378
Increased value of sapling stock, ...	5,952 — 5,003 =	849
	Total...	8,227
Excess expenditure on receipts, being the net cost of conserving 2,456 acres		2,713

Extension, 235 Acres.

Three-tenths establishment		2,780
Working charges		4,270
	Total...	7,050

NATURAL FOREST.

Expenditure.

	Rs.
One-fifth Establishment	1,854
Timber expenses	6,221
Miscellaneous	246
Total...	8,321

Receipts.

Timber...		7,805
Bamboos		1,703
Firewood		251
	Total...	9,759
Deduct decrease in value Stock	...12,012 — 9,074 =	2,938
		6,821
Excess Expenditure...		1,511

23. During the last year Major Pearson, when Inspector-General of Forests with the Government of India, informed me that a correct account of the expenditure on the Conolly plantations from their commencement was a desideratum in view to operations elsewhere, as well, of course, as an essential to the proper estimate of the financial result of the plantations, and requested me to try and obtain the requisite information. In preparing the account great difficulty was experienced, owing to the earlier accounts not having been kept in any great detail, and also owing to the fact that the expenditure and receipt from natural forest was not shown separately. It had, therefore, to be compiled from a scrutiny of the available detailed accounts. The work was rendered simpler as regards the earlier years by the fact that until 1859 there were no sales of saplings, and that up to 1862 there were no working charges in connection with natural forests, the timber being sold on stump fee. By comparing accounts in the Collector's Office and in Mr. Ferguson's, I have, with that officer's assistance, compiled the following return which may be accepted as a near approximation. Up to a certain period I have debited the plantations with

half the establishment, and subsequently with two-thirds as the area of plantation increased and that of natural forest diminished:—

Years.	Establishment.	Working Charges and Contingencies.	Total.	Receipts from Thinnings.	Difference of Receipts and Expenditure.	Acres of Extension.	Acres conserved.
	RS.	RS.	RS.	RS.	RS.		Progressive total.
1841-42 ...	567	1,676	2,243	...	— 2,243	...	...
1842 43 ...	338	990	1,328	...	— 1,328	31	31
1843-44 ...	423	1,251	1,674	...	— 1,674	...	...
1844-45 ...	446	1,430	1,876	...	— 1,876	63	94
1845-46 ...	870	1,169	2,039	...	— 2,039	61⅓	155⅓
1846-47 ...	870	1,395	2,265	...	— 2,265	100⅔	256
1847-48 ...	870	1,488	2,358	...	— 2,358	118½	374½
1848-49 ...	870	1,477	2,347	...	— 2,347	182½	557
1849-50 ...	870	1,443	2,313	...	— 2,313	134½	691½
1850-51 ...	870	1,698	2,568	...	— 2,568	132⅕	823 7/10
1851-52 ...	870	1,094	1,964	...	— 1,964	147⅕	970 9/10
1852-53 ...	870	2,802	3,672	...	— 3,672	38½	1,009 4/10
1853-54 ...	870	1,418	2,288	...	— 2,288	55⅗	1,065
1854-55 ...	870	1,544	2,414	...	— 2,414	92⅓	1,157⅓
1855-56 ...	870	1,130	2,000	...	— 2,000	100⅓	1,257⅔
1856-57 ...	870	1,454	2,324	...	— 2,324	79⅕	1,336 14/15
1857-58 ...	870	1,083	1,953	...	— 1,953	36 1/10	1,372 29/30
1858-59 ...	870	608	1,478	...	— 1,478	42⅘	1,415 23/30
1859-60 ...	870	1,872	2,742	...	— 2,742	39⅘	1,455 17/30
1860-61 ...	870	1,185	2,055	...	— 2,055	39½	1,495 1/15
Twenty years Total...	15,694	28,207	43,901	...	—43,901	1,495 1/15	15,519
Yearly Average...	784 7/10	1,410 7/20	2,195 1/20	...	— 2,195 1/20	74¾	775 19/20
1861-62 ...	1,160	2,039	3,199	...	— 3,199	86	1,581 1/15
1862-63 ...	2,008	3,753	5,761	12,044	6,283	50 1/10	1,631 1/6
1863-64 ...	3,006	6,254	9,260	1,210	— 8,050	81¼	1,712 5/12
1864 65 ...	2,950	8,993	11,943	16,776	4,833	121 7/10	1,834 7/60
1865-66 ...	3,278	9,076	12,354	9,307	— 3,047	56⅔	1,890 17/60
1866-67 ...	3,656	6,572	10,228	15,647	5,419	128⅔	2,019 47/60
1867-68 ...	3,684	7,923	11,607	500	—11,107	118⅔	2,138 7/60
1868-69 ...	4,656	8,486	13,142	9,515	— 3,627	145⅔	2,283 31/60
1869-70 ...	4,210	5,656	9,866	4,173	— 5,693	53½	2,337 1/60
1870-71 ...	4,394	8,659	13,053	5,583	— 7,470	74¼	2,411 4/15
1871-72 ...	4,546	9,929	14,475	843	—13,632	45	2,456 4/15
1872-73 ...	6,236	13,139	19,375	7,378	—11,997	235	2,691 4/15
Twelve years' Total...	43,784	90,479	1,34,263	82,976	—51,287	1,196⅕	24,986
Yearly Average...	3,648⅔	7,539 11/12	11,188 7/12	6,914⅔	— 4,273 11/12	99⅔	2,082
Grand Total..	59,478	1,18,686	1,78,164	82,976	—95,188	2,691 13/15	40,505
Yearly Average...	1,858 1/15	3,708 4/15	5,567⅔	2,593	— 2,974 1/15	84	1,265 2/3

24. This statement shows that, in round numbers, excluding purchase-money and interest thereon, the gross expenditure on 2,500 acres has been Rupees 1,78,000, and the receipts from thinnings 83,000, leaving a net expenditure of Rupees 95,000, and that an average annual revenue has been realized during the last twelve years of 7,000 Rupees from the sale of thinnings.

25. It will be noticed that this revenue was larger in the earlier years of the above period which may be explained, firstly, by the fact that thinning had been neglected and an unduly large number of trees had, therefore, to be removed within a short time ; and, secondly, by the fact that one or two large purchases were made at a time when speculation was rife in Bombay.

The revenue from thinnings in the long run must be an increasing one. The saplings are classed as follow :—

Average Diameter.	Average Length.	Class.	Average Price.
3¼ to 4 inches...	30 to 40 feet ...	Superior	1 to 4 Rupees each.
2½ to 3 ,, ...	30 to 45 ,, ...	1st class	1 to 2 ,, ,,
2 to 3 ,, ...	30 to 40 ,, ...	2nd ,, ...	12 annas to 1¼ Rs. each.
1¾ to 2 ,, ...	20 to 35 ,, ...	3rd ,, ...	6 to 12 Annas each.
1 to 1½ ,, ...	15 to 30 ,, ...	4th ,, ...	1 to 8 ,, ,,

26. In addition to these classes, 400 saplings were brought to depôt this year for which an average of Rupees 5 each was refused ; they are retained for sale this season. These have an average diameter of 3 to 6 inches, and the number of this class annually brought to market must necessarily increase at a very rapid rate.

27. There can be no doubt that if freed from the cost of annual extension and maintenance of young plantations, a very few years would see not only the receipts and expenditure in equilibrium, but a considerable and increasing surplus.

28. The following sums have been paid as purchase-money at the various dates noted :—

	Rs.
1. Trikalayur Divaswam in 1840	8,000
	1,000
2. Naduvath Namburi for Chatamboria in 1871	5,000
3. Edawanna Rajah for Amarapolliam and Karimpoya in 1872 ...	80,000
Total...	94,000

The figures will, I think, admit of a capital account of the plantations being prepared according to whatever system may be decided on by Government.

29. In a few years the land in the block represented by the payments 1 and 2 will have all been planted up, and this would be a good opportunity of closing the capital account of that section of plantations. The accounts in connection with the new plantation on the new block purchased this year might be kept entirely separate. We should then see beyond possibility of error the actual financial result of a given area of the plantations relieved from the drain caused by annual extensions and by young plantations, on which the expenditure is heavy and returns *nil*. The interest on the purchase-money of the new block would, of course, be debited to the new section.

30. The survey of the Nilambur range has been completed this year, thus enabling the correct acreage to be entered. It is anticipated that great facility in working will be secured by the accurate knowledge now obtained of the shapes of the different blocks. By help of these maps I am now preparing a scheme of roads. A systematic valuation, too, can now be commenced.

31. The range has been as usual under the able management of Mr. Ferguson. Mr. Stanbrough has joined it as a probationer, and has been usefully employed in superintending operations of different kinds. He promises to make a good officer.

32. *Wynaad.*—The Deputy-Conservator's report gives a full account of the working of this range. During the year under report the maistry who was an accomplice in Overseer Turnbull's frauds was convicted and sentenced to two years' rigorous imprisonment and 2,000 Rupees fine, commutable to eighteen months further imprisonment.

33. *Felling Timber.*—Six thousand one hundred and thirty-four cubic feet of Teak have been felled. The operations have been somewhat checked by the fact that a large quantity of timber, some of it felled several years ago, is lying about in the forest. This Mr. Peet proposes to collect and dispose of, and then to undertake felling on a proper system, selecting definite areas where both felling and carting can be more thoroughly supervised. One great evil that has resulted from the scattered character of previous operations has been that the logs have been often depreciated in value by being cut in two or shortened; in the latter case the piece being thrown away. The cartmen are paid by the contractor so much a log, and it is, therefore, worth their while to pay the Kurumber axemen to shorten logs, and when operations were simultaneously going on over an immense area, the supervision was not close enough to check this practice. If possible, the contractor should be bound to pay cartmen by measurement.

34. *Survey and Demarcation.*—The necessity of a proper survey and demarcation of these forests is, with great justice, insisted on by the Range Officer, and should at once be taken in hand. After communication with the Superintendent of Revenue Survey, I shall address the Board on the subject.

35. *Kumery or Takkul.*—When these forests were first assumed by Government they had already been extensively occupied by Chetty ryots as well as jungle tribes, and it was impossible to check a system of cultivation on which many people depended for a livelihood. I have no doubt that arrangements can be made in the course of survey to mark out blocks of valuable forest land where this practice may be wholly interdicted.

36. *Planting.*—Nothing has been done in this line, and looking at the fact that labour and carriage are costly, and that the natural growth shows no signs of exhaustion, it seems undesirable to do anything beyond some experimental planting on a small scale.

37. *Financial Results.*—These are fully gone into by Mr. Peet. There is a nominal balance in favour of the forest of 72 Rupees calculated on the old system, *i.e.*, on expenditure, receipts and difference of value of stock.

This appears to be the most reliable method of calculation, taking the probable market price for timber in market depôt and for timber in forest depôt the market price *minus* probable cost of carriage, having an appropriate figure for each depôt. I am unable to follow the calculation according to expenses incurred.

38. Chenat Nair or Palghaut. *Timber.*—No felling took place during the year. This was partly owing to the forest requiring rest, and partly to a change of Overseers. There are logs valued at 1,351 Rupees entered as stock lying out in the forests. These should be at once collected and brought to market depôt as well as any wind falls.

39. *Fuel Reserves.*—The blocks of fuel reserves alluded to in paragraphs 19, 20, and, 21 of the Deputy-Conservator's report, Section II., form part of the Chenat Nair Range. The natural growth has been supplemented by planting, but the trees do not thrive; the expenditure of 1,245 Rupees was incurred almost entirely in re-placing casualties. Mr. Douglas reports that a thoroughly effective fence is indispensable, and that the bank and ditch with aloe on the top is a failure.' The experience of the railway is the same. The weak point of this sort of fence is that the failure of a few plants here and there at long intervals is unavoidable, and that this is quite enough to let in cattle. The only fencing found effectual by the railway in this locality is a 5-wire fence or a loose stone wall with coping set in chunam.

40. The range has never been surveyed, and great uncertainty prevails as to its limits. It is proposed to take this in hand at once.

41. During the year the purchase of a fine block of fuel reserve was negociated, and this is now being taken in hand; the climate and soil are both favourable, and the line traverses the block throughout its entire length.

42. The report on the range is necessarily imperfect, owing to its accounts and working charges having been incorporated with several other forests in the Coimbatore District. I hope to get it well into shape this year, and propose to refer to it in future as the Palghaut Range. The

officer in charge, Mr. Douglas, has done all that he could for the range without neglecting his more important and distant charge on the Anamalays.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) A. MACGREGOR,
Collector.

[ENCLOSURE 1.]

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
COIMBATORE, 18*th June* 1873.

From

C. G. DOUGLAS, ESQ.,
Deputy-Conservator of Forests, Palghaut, etc., Ranges,

To

A. MACGREGOR, ESQ.,
Collector and Conservator of Malabar.

SIR,—I have the honour to submit the Administration Report of the Palghaut Range for the year 1872-73.

2. As both accounts and report unavoidably pertain, in some measure, to forests, etc., not in the Malabar District, I beg to offer a few remarks prefatory to the details, in explanation.

3. Hitherto it has been the custom to submit one general report for Chenat Nair, Walliar, Sholacurray, and Bolumputty, but, as had been resolved prior to the re-organization (*vide* paragraph 29, Section V., in report for 1871-72), the latter was separated from the others on 1st April, an independent fund being sanctioned. The other forests were termed the "Palghaut Range," and worked by the establishment and from the funds provided for "Chenat Nair." A portion of Walliar and Sholacurray being in the Coimbatore District (Chenat Nair lies in Malabar), it is obvious that these arrangements were not in accordance with the *district* administration of this department introduced with its re-organization. In October, however, when the re-organization came into effect, it was found convenient not to disturb the existing management till April 1873, as, at that advanced period of the year, it would have been difficult to adjust accounts so as to correspond with district expenditure.

4. Funds and supervision having been furnished by Malabar, and all accounts having been submitted to the Conservator of that district, it is necessary that this report and the annual accounts should follow.

5. From the commencement of the current official year, the expenditure and control of Walliar, etc., will be amalgamated with that of Bolumputty under the Collector of Coimbatore, while the "Palghaut Range" will contain no forests beyond the jurisdiction of the Collector of Malabar.

SECTION I.

Inspection Tour of the Officer in Charge.—I visited the range in July, August, September, October, and March.

SECTION II.—RESERVES.

A. Reserved Forests.—There has been no felling. A quantity of timber, however, has been added to accounts, which Mr. Lloyd had not measured or charged for in the previous years. The cost is shown in Statement A, under heading No. I., and the value has been added to value of stock in Statement D, and Memo. No. II. I directed Mr. Lloyd's successor to make an inspection of, and re-measure all timber in depôt at close of last year. This has been done, and stock returns amended accordingly.*

* *The stock in Chenat Nair* has been increased by 85½ cubic feet of Rosewood and decreased by 32 cubic feet of Junglewood.
Sholacurray stock has been increased by 96-8-11 of Rosewood, 417-8-10 of Teak, and 118-4-5½ of Vengay.

2. Mr. Lloyd's ill-health and subsequent departure on sick leave in August induced me to postpone the felling and other timber operations mentioned in paragraph 9 of last year's report as being more than the Acting Overseer, fresh to the work and unacquainted with the forests, could be expected to do well, in addition to getting up the arrears into which I found work of all kinds had fallen on my inspection in July.

3. The timber lying in forest depôts in the Sholacurray and Walliar jungles should be collected at the Walliar railway station or near the chuttrum on the road to Coimbatore, from either of which places it could be easily sent to Coimbatore, Palghaut, or elsewhere up or down the line if not sold on the spot.

4. The timber in Chenat Nair forest should be inspected and collected. It has lain for years in the forest, and some cut before the department assumed charge may prove worthless.

	RS.	A.	P.
Value of timber in Chenat Nair forest	1,351	4	0
Do. of do. in Sholacurray.....	4,220	4	8

5. The Sholacurray and Chenat Nair stock are separately entered in Statement D.

B, Fuel Reserves. Walliar.—A sum of Rupees 1,713-9-10 has been spent on this reserve, including, of course, cost of temporary establishment. In 1871-72 the expenditure amounted to Rupees 2,912. A saving of Rupees 1,198 has, therefore, been effected.

2. Two hundred and ninety-nine chains of the trench round the old reserve has been cleared out and repaired and ·68 chains in the new reserve; a block of 40 or 50 acres south of the line taken up in 1872.

3. A fire-path of 537 chains was traced round the old reserve and carefully maintained, the breadth 60 feet, except on the side next the railway where it was as usual widened.

4. One hundred and thirty-five chains were similarly traced in the new reserve. The cost of this work for the two was Rupees 638-4-5.

5. In spite of these precautions a fire took place and swept through a large portion of the reserve without, however, doing any material injury; the plantings having been isolated were untouched. I visited Walliar directly afterwards, and satisfied myself that the fire had broken out *inside* the fire-path; all this has been duly reported. It would be a good plan, and one I intended to carry out last year had funds permitted, to cut permanent traces, 12 or 15 feet wide, across the reserve, so as to divide it into four or more blocks; they would eventually be useful as cart-roads, and, in the event of a fire occurring, would probably be the saving of the reserve, as, by surrounding the block on fire, a gang of men could arrest the flames. They would facilitate work, inspection, and estimate of growth.

6. An old well has been repaired, and a new one partly sunk; cost Rupees 28.

7. Several small nurseries have been made and kept up.

8. The temporary establishment have been employed in re-placing casualties, in clearing young plants, and in preserving the fire-trace in a proper condition; cost Rupees 777-0-7.

9. Casualties have been re-placed from the nurseries with Vapum (*Azadirachta Indica*) Tamarind (*Tamarindus Indica*), and Parambay (*Prosopis spicigera*).

10. This fuel reserve was first formed in the year 1868, when it was enclosed and provided with nurseries; four clear working seasons (south-west monsoons) have, therefore, passed since the completion of these preliminary operations. It measures about 1,000 acres; that is, the block purchased in 1868 is said to contain 960 acres, while the piece of land added in 1872 is estimated at 40 acres.

11. When the department assumed charge, the greater portion of the land was under cultivation; it contained only a few pieces of jungle, where, however, trees varying from 6 to 12 inches in circumference were plentiful, which, it was supposed, would be fit to cut in four years if properly attended to. The influence of the south-west monsoon was expected to ensure rapidity of growth and a constant supply of railway fuel at a moderate outlay.

12. The reserve has been under my observation for three years, and though there has been a marked improvement in the general appearance of the indigenous trees, while natural re-production has taken place to a considerable extent, it is far from realizing the anticipations with which operations were commenced.

13. In 1869-70 Captain Gosling began planting, and attempted broadcast sowing on a small scale. The latter experiment, as remarked by the Conservator in paragraph 77 of his report for that year, was a failure, and I may add that even the planting was not attended with brilliant results. In the three succeeding years during which I have been in charge, efforts have been made to supplement the natural growth in the cleared spaces formerly under cultivation by means of pitting and planting, and although something has been effected the progress achieved has not been, on the whole, encouraging. I am inclined to think that ploughing and sowing has not been sufficiently tested, and our one failure hardly warranted the discontinuance of a method so much simpler and less expensive than planting. I hope, therefore, to revert, in some measure, to that system in the approaching season*.

* Since writing the above, the planting weather has set in, but I regret to say that the Overseer has failed to make arrangements for cattle and ploughs. I have resolved, however, to give the plan a trial, and hope to succeed this month. Having recently inspected Walliar, I find that the following seeds *sown* in pits thrive exceedingly well; seed was put down in 12,000 pits during the first week of June, and is now flourishing. I observe *no* failure. From this I am led to suppose that ploughing and sowing should answer well.

14. It must be borne in mind that, although Walliar is within the influence of the south-west monsoon, it is subject to an intensely hot and dry season from February to the middle of May. We are on the very outskirts of the monsoon, and I feel sure that in an ordinary season the rain-fall would be found much less in the reserve than even a mile to the west. I regret that it never occurred to me to test this by registering the fall in various localities. The really moist and growing weather ceases at Walliar much earlier than further west; hence, plants have to encounter a long and severe drought.

Karuvalum (*Acacia Arabica*).
Parambai (*Prosopis spicigera*).
Velvalum (*Acacia ferruginea*).

15. It has been repeatedly noticed at Walliar that, however well our plants may look when they are put out, however favourable the weather at the time, and up to the end of the monsoon, they succumb to the effects of the dry weather.

16. We have unfortunately no water in the reserve, except in the two wells before alluded to, which are required for nursery work. I find in Captain Gosling's report for 1868-69 that mention is made of an anicut constructed by him for irrigation purposes across a stream which then flowed through the reserve. This stream failed very soon afterwards, and has never again run, though, I am told, it was never dry previously. The exhaustion of a stream occurring simultaneously with the reservation of a jungle tract is peculiar. The Mulcers tell us, we should have made "poojah," and I have accordingly directed "poojah" to be made during the next official year.

17. Saplings and seedlings alike are destroyed in large numbers by deer, pig, and hares which are plentiful in the reserve.

18. The aloe, with which we have topped the trench and embankment fencing, does not thrive. In places it is most vigorous but wide and numerous gaps are to be found, and so it is practically of little use. The trench and enbankment are not, however, sufficient of themselves to keep out cattle. Wire is expensive, but a thoroughly effective fence of some sort is indispensable. The Railway Company are constructing dry stone walls, and this, if not more expensive than wire, might be tried, as both the material and the required labour are abundant. It is a neat, durable, and easily repaired fence, and, what is of great importance, would help to keep out fires.

19. *Nocheepully.*—A sum of Rupees 697-4-9 has been spent here, which is more by Rupees 35 than the expenditure of 1871-72.

20. Fifty-nine chains of trenching have been repaired, and 192 chains of fire-path traced, a well has been sunk, 3,000 casualties re-placed, and a large area cleared and weeded.

21. In *Pulliampully* 3,800 casualties have been re-placed, 3,000, pits cleared and weeded, 54 chains of fire-tracing made, and 61 chains of trench-work executed. Expenditure Rupees 547-15-0, which is less by Rupees 211-9-0 than the previous year's outlay.

SECTION III.

License and Voucher Forests.—This system is not in force in the Chenat Nair forests, and only to a small extent in Walliar, the receipts from which are credited to the Bolumputty Range. Statement E is accordingly omitted.

SECTION IV.

Yield of Forests.—The timber shown in Statement B was not felled this year; it was cut from the Sholacurray forests by Mr. Lloyd in 1872, but not brought to account, nor the felling, etc., charged for. The value imposed corresponds to the cost entered under heading I. in A.

2. Statement C gives result of sales. These are not satisfactory, yielding a return less than estimated value by Rupees 104-10-5. The wood had been stored for some years, and it was absolutely necessary to get a sale even at some sacrifice. About 2,000 Rupees worth of timber at Coimbatore has been sold by auction since the close of the year under notice. The total value originally imposed was realized over the whole in consequence of some Anamalay timber selling high, but much of the Walliar and Sholacurray timber went below estimated value. Details, however, do not belong to this report.

SECTION V.

Financial Results.—There is a net balance of Rupees 5,141 against the Range, thus :—

Gross Expenditure.	Receipts.	Difference.	Value of Stock.	Increase or Decrease during year.	Net Results.
RS.	RS.	RS.	RS.	RS.	RS.
6,520	840	—5,680	{ 5,033 / 5,572 }	+539	—5,141

2. In 1871-72 the financial results of Chenat Nair (including Sholacurray and Walliar) were embodied with those of Bolumputty, and in the report for that year the following figures are shown :—

Gross Expenditure.	Receipts.	Value of Stock.	Increase during the year.	Net Results.
RS.	RS.	RS.	RS.	RS.
9,751	7,638	5,226	+100	—2,013

3. The increased deficit for the last year may be attributed to the withdrawal of the Bolumputty revenue from these accounts rather than to unusual expenditure or to other than a temporary cessation of sales. A combination of the financial statements of the Bolumputty and Palghut ranges for the year under review will render the explanation clearer.

Ranges.	Gross Expenditure.	Total Receipts.	Difference.	Value of Stock.	Increase or Decrease of Stock.	Net Results.
	RS.	RS.	RS.	RS.	RS.	RS.
Palghaut	6,520	840	—5,680	5,572	+539	—5,141
Bolumputty	1,417	3,559	+2,142	379	+286	+2,428
Total...	7,937	4,399	—3,538	5,951	+825	—2,713

4. It will be found, on comparing the totals of the foregoing table with the entries in the one copied from the report of 1871-72, that the difference between the net results of the two years is Rupees 700, by which sum the deficit of 1872-73 exceeds that of 1871-72. But it will also be seen that the expenditure is less in 1872-73 by Rupees 1,814, which, in great measure, accounts for the decrease in receipts, amounting to Rupees 3,239, and for the net increase of deficit.

5. The following statement showing the distribution of revenue and expenditure was given in Section V. of the report for 1871-72, paragraph 26:—

———	Bolumputty.	Sholacurray.	Chenat Nair.	Fuel Reserves.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Receipts	3,379 13 0	4,258 2 0	.....	.....
Charges	1,206 15 3	2,712 3 6	.....	5,434 2 0

N.B.—These figures include a share of Permanent Establishment. A sum of Rupees 397 included in gross expenditure in statement under paragraph 23 of Report for 1871-72 was not shown in this statement for want of details.

6. A comparison with a similar form for 1872-73 will further elucidate matters.

———	Bolum-putty.	Sholacur-ray.	Chenat Nair.	Fuel Reserves.
	RS.	RS.	RS.	RS.
Receipts	3,559	840	*Nil.*	*Nil.*
Charges	1,417	2,282	7	4,231

7. Out of the sum of Rupees 6,520, gross expenditure for the year, excluding Bolumputty, the cost of permanent establishment amounts to Rupees 1,708-15-0, which I have divided between the fuel reserves and Sholacurray forests; to the former Rupees 1,200 is charged as in 1871-72, to the latter Rupees 508-15-0; of the balance, Rupees 3,031 was laid out on fuel reserve, etc., which leaves an expenditure of Rupees 1,772-1-0 debited to Sholacurray. Chenat Nair only cost Rupees 7 for clearing brushwood.

8. The expenditure on Sholacurray is less by Rupees 430-3-6 than in 1871-72, and a saving of Rupees 1,203-2-0 is effected under fuel reserve work.

9. Dividing the total expenditure between the districts of Coimbatore and Malabar, in both of which the range, as hitherto constituted, lies (excluding Bolumputty which has been separately reported on), a sum of Rupees 3,565-15-8 has been actually spent within the limits of the former, and of Rupees 1,245-3-9 within those of the latter district, irrespective of permanent establishment charges.

SECTION VI.

General Remarks, Conduct of Subordinates, etc.—The Acting Head Overseer has laboured under disadvantages. The state of the range when he assumed charge was by no means satisfactory; his experience of forest work very limited and his knowledge of the district *Nil;* his general behaviour since joining merits approval.

2. A dispute has arisen in regard to the right of cutting timber in a valuable tract of land called Vellalutan Pothai. The forest has been in our possession for years, and we were ignorant of any opposing claims until the agents of Karampolimalai Devastanum commenced felling in the month of January last. The case was brought before the Tahsildar of Palghaut but without any satisfactory result; a sketch map in the Collector's cutcherry on which we relied to prove our rights tended rather to complicate matters. Further felling, however, has been put a stop to, and the case having been brought to the notice of the Head Assistant Collector, the interests of Government will doubtless be duly protected.

3. Another case of illegal felling was detected in Kavarabonee in March, brought before the Tahsildar of Palghaut, and the offenders have been punished with a fine of Rupees 400.

4. The Overseer reports a number of ripe trees at Moondoor sholah, Kallathody, Ambalumallai, Vellatai sholay, and elsewhere, consisting of Venteak, Vengay, Pillaimurdoo, Erul, and a few Teak and Rosewood. He reports the existence of Erumbagum. He estimates that 300 logs could be obtained from windfalls and the like. These latter should at all events be utilized, and,

considering the outlay that has been experienced of late, it might be well to cut some good ripe timber, and offer it for sale, so as to restore the financial equilibrium of the range.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) C. G. DOUGLAS,
Deputy-Conservator of Forests, Palghaut, etc., Ranges.

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
MANANTODDY, *30th June* 1873.

No. 104.

From

A. W. PEET, ESQ.,
Deputy-Conservator of Forests,

To

COLONEL H. R. MORGAN,
Deputy-Conservator of Forests, Ootacamund.

SIR,—I have the honour to submit my Annual Administration Report on the Wynaad forests for the official year ending on March 31st, 1873.

SECTION I.

Inspection Tours of the Officer in Charge.—In April 1873 I was away from head-quarters from the 10th to the 29th, being engaged for the greater part of that time in conducting at Mysore the auction sales of Mudumallay and Wynaad timber and in settling certain claims, not before definitely determined, arising out of the fraudulent transactions of the ex-Overseer Turnbull. These claims were laid on the ground that advances made by merchants for the purchase of timber had not been satisfied. These claims are now all settled. There is, however, an outstanding claim of another nature that will be settled during the current year. In this case Junglewood was delivered to a purchaser instead of Teak.

2. In May I was employed from the 14th to the 25th day of the month in measuring and stamping timber at the Gundry depôt and in searching out timber in the jungles that had been felled at different periods during the last five or six years, but never carted from the forest. As this timber has always formed part of the balance in hand in the annual accounts, I laid great stress on its recovery. Between fifty or sixty logs have been accounted for, but some of these are so large that it is impossible to cart them from difficult positions in the jungles. Elephants are almost indispensable for the removal of such logs to favourable points in the regular cart-roads.

3. During June carting operations ceased on account of the monsoon. From the 24th to the end of the month I was engaged in an endeavour to determine accurately the boundaries of our forests towards Padry on the north-west of the Poolpully forests.

4. I have little doubt from the irregularity of the line of boundary stones that more than one of these has been moved. It is, however, impossible to determine this point accurately in the absence of a general survey. On this subject I append some remarks in Section VI.

5. During July there was little work on account of the monsoon. I allowed some felling by way of experiment.

6. In August I was engaged for nearly the whole of the month with the auction sales at Mysore and in investigating certain frauds connected with the Mysore depôt of Mudumallay timber. The details of these frauds are not entered upon here, since they do not concern the Wynaad forests. The average price of timber at the April and August sales was about Rupee 1 a cubic foot. The large quantity in store at the beginning of the year lowered the market value.

7. In September I was engaged in examining, with the Deputy-Collector, the boundaries of the forests claimed by the Pamry Nair. This claim is still under examination. The forests lie between the south-west portion of the Chedleth and the south-east of the Poolpully Temple forests. They form a valuable tract, being richer in Teak than any part of the Chedleth forests.

8. In October I turned my attention almost exclusively to the Coodracote forest on the Coorg frontier. I found some encroachments on the reserved land and ejected the intruders. There is still a large amount of valuable timber in this forest, but parts have been overworked. The effects of the Ragi cultivation by the Coorumbers are even more apparent here than in the Chedleth forests. Acre upon acre has been felled, and, as the same piece of land is never cultivated for more than two years in succession, and rarely for more than one year, there is a systematic clearing of a large extent of forest that would otherwise, in most cases, have contained valuable timber. On this subject I append some remarks under the heading "Tukkul" in Section VI.

9. In November, having started towards the end of October, I went out for the purpose of pointing out a definite area for felling, since timber had previously been felled over so wide an extent that carting operations were utterly unsystematic. During this month also I marked out a road leading from the Chedleth forests to Sultan's Battery. This road has been completed at a very trifling cost; since, by following the ridge of hills, I was able to trace a road over grass-land, without the necessity of levelling any ground for the greater part of the way. There was, however, considerable difficulty at one or two points beyond Chedleth.

10. I paid a visit to a large tract of forest to the east of Sultan's Battery. This has not been worked for some years, and, although not producing first-class timber, is still valuable. I propose felling there during the current year. This portion of the Wynaad forest reaches as far as Mudumallay forest on the east and to Nellicottah on the south. Towards the end of this month I visited, in company with the Deputy-Collector, the Cardamom ground lately escheated to Government. This tract consists of several hills lying towards Peria on the north, the ghauts on the west, as far as Vallant on the east, and Coonjote on the south. It has been arranged to place this tract under the Forest Department. In this case, I must apply for an increased establishment, since it is impossible to do justice to so large a tract with my present establishment.

11. In December I spent some time in the Coodracote forest, and went afterwards to Tellicherry to arrange about a depôt for the timber which I am sending down thither. I have now about sixty logs there, but have not held a sale. I propose to sell in July. This is an experiment, for hitherto this market for Wynaad timber has not been attempted.

12. In January I again went through the Chedleth forests, starting from Gundry through to Chedleth and Sultan's Battery, and thence through the forests to the east. I found the usual difficulty with carting arrangements, namely, that the cartmen, in order to obtain convenient loads, made repeated attempts to bribe the Coorumbers to cut long logs in half, or even to saw two or three feet off fashioned timber.

13. Early in February I set out, acting under the orders of the Collector, to make arrangements for allowing the owners of the Tirinhully Pagoda to fell timber for the repair of the temple. I stipulated, however, that no logs were to be removed from the place of felling until stamped by me. I was then called up to Mysore to defend a suit connected with the frauds committed at the Mudumallay in July. The details are not entered upon here, since the case concerned the Mudumallay forest only; but I have to explain that I was named as 2nd defendant, since I had acted for Colonel Morgan at the sale of Mudumallay timber in August. As Colonel Morgan could not appear at the time, the defence devolved on me. The action was brought by a merchant to recover value for timber bought by him from the Mudumallay Overseer, part of which timber had been removed by him to Bangalore, where the sale was interdicted by the Forest Department; the remaining portion of the timber had been left at Mysore and re-sold by me in August. The grounds for this course were an allegation of fraud against the Overseer and complicity on the part of the merchant, selected timber having been sold at the market-rate for unselected.

A criminal action was not entered upon at the time on account of the absence of the Overseer, of whose whereabouts nothing was known. The plaintiff in the present case compromised by accepting the terms of the defence almost without modification, paying full market value for certain logs previously removed, giving up all claim to the timber re-sold in August, and paying costs.

14. In March I left Mysore for Calicut, in order to meet the Inspector of Forests whom I accompanied on his tour through the ghaut forests to Wynaad.

SECTION II.

Reserves.

15. *A, Reserved Forests, Operations, and contemplated Operations.*—The amount felled is not so large as I had intended, for the reason that I found after trial that the carting arrangements were inadequate, and evidences of waste are everywhere apparent in the forests, since the precaution of limiting the amount felled to the capabilities of conveyance has not been taken into consideration. There are now in the forests logs felled at different periods during the last six years, and the losses by fire and other causes of destruction or deterioration are excessive. I have been obliged lately to call in a second cart contractor, exclusively for the Coodracote forest, since one contractor could not work properly both in the Coodracote and Chedleth divisions.

16. The *boundaries* I have attempted to determine, and have commenced marking large trees along them in order to supplement the use of stones. Encroachments are, however, continually made in every direction, and nothing but an accurate and detailed survey, with strict conservancy laws, will effectually prevent them. The greatest encroachments are made from stations in the interior of the reserved tracts. Chetties and others have very ill-defined holdings, and hitherto have increased them almost at will, for such boundary stones as exist generally encircle large tracts, and do not give any guide as to the extent of small included properties.

17. With reference to *Communications*, a road to Sultan's Battery from the Chedleth forests has been made. The bridges on the ordinary cart-tracks have all been strengthened. Three of the bridges thus strengthened have been partially destroyed by wild elephants, one bridge having been injured no less than three times. Several elephant pits have been made near the ordinary watering places of these animals, and one female has been caught.

18. *B, Fuel Reserves.*—At present there are none.

19. *C, Plantations.*—Experimentary operations have been made on a small scale. Before doing anything on a large scale, I wish to have an opportunity of visiting the Nellambur plantations and those at Mudumallay, which I hope to do during the present monsoon when work is slack here. During the past year I have made myself generally acquainted with the nature and requirements of the forest; but there is still a vast work of mapping out, and systematic division of the forest, that should, I think, precede any very extended operations.

20. *Contemplated Operations.*—I propose turning my attention as much as possible to the question of boundaries. During the past year I have endeavoured to discover the limits of the reserved forests in parts of Coodracote and on the line of the Chedleth forests that borders on the Poolpully Temple tract. Towards the end of the monsoon I shall endeavour to discover the boundaries of the forests to the east of Sultan's Battery, and also to the north-west along the line of the old road made on the summit of the range of hills leading from Sultan's Battery to Pannamaram. In the angle formed by this range and the range leading due north of Sultan's Battery, I have found some of the reserve boundary stones, although the coloured outline of the reserve in the map by Lieutenant Fullerton does not descend into this angle, but is drawn across so as to form a line opposite to the angle. From this point along the old line of road to Pannamaram I have reason to believe that the forest is Government property; however, there are plantations of native coffee along nearly the whole of the route. Some of these plantations are at least six years old.

21. With regard to felling I propose to fell as much as I consider can be conveniently removed to depôt, taking care first to remove as many as possible of the old logs now lying in the forests. I propose to form a depôt at Sultan's Battery from the forests to the east of that place.

With regard to the Cardamom tract lately escheated to Government, I shall endeavour, if granted an extra establishment, to cultivate the Cardamoms according to the method adopted in Mysore.

SECTION III.

22. *License and Voucher Forest Operations.*—None. All operations are departmental.

SECTION IV.

23. *Expenditure on carting, felling, and floating. Yield of forests.*

A—Timber felled—

At Coorchart, 3,836¾ cubic feet of Teak were felled during the year.

At Coodracote, 2,297 cubic feet of Teak and 302½ of Blackwood were felled. The rates for felling were, as usual, one Anna a cubic foot.

B—Timber carted—

To Mysore depôt, 6,895½ cubic feet of Teak were carted.

To Manantoddy, 475¼ cubic feet.

To Tellicherry, 785¼ cubic feet.

The timber from the Coodracote forest has been reserved entirely for the trade to Manantoddy and Tellicherry.

The Mysore market is supplied from the Chedleth forest.

The rates for carting have been reduced this year, since they were excessively high :—

——	Old Rates.			New Rates.		
	RS.	A.	P.	RS.	A.	P.
From Chedleth forest to Gundry, a cubic foot ...	0	3	0	0	2	6
Do. do.	0	3	6			
Do. Gundry to Hirnandy (floating) ,, ...	0	1	0	0	1	0
Do. Hirnandy to Mysore	0	2	0	0	1	6
Do. do.	0	2	6			
Do. Coodracote to Manantoddy	0	6	0	0	2	6
Do. Manantoddy to Tellicherry	0	8	0	0	7	6
Total...	1	10	0	0	15	0

C—Timber floated—

From Gundry to Hirnandy, 6,895½ cubic feet of Teak were floated. The rate of payment is one Anna a cubic foot.

D—Timber sold—

	RS.	A.	P.
Sale of Bamboos...	26	8	0
Do. of Teak	21,223	10	9
Do. of timber to Department of Public Works ...	348	13	0
Total...	21,598	15	9

SECTION V.

Financial Results.

Expenditure—	RS.	A.	P.
Conservancy and working	4,188	15	6
Establishment	6,882	6	5
Contingencies	72	5	0
Total...	11,143	10	11

Receipts—	Rs.	A.	P.
Sale of bamboos	26	8	0
,, of wood	21,223	10	9
,, of wood to Department Public Works...	337	9	0
,, of saplings ,, ...	11	4	0
,, of elephant	1,750	0	0
Miscellaneous	94	0	0
Money in hand refunded	102	15	11
Total...	23,545	15	8

24. *Value of Stock and Financial Results.*—In order to compare the financial results of the two last years, I give the value of stock in hand according to the old system, first, namely, by valuing it at or about its supposed selling price.

25. I append the true financial results for last year calculated in accordance with Government Proceedings, dated 22nd June 1872, No. 962.

Value of Stock in Hand calculated according to supposed selling Value.

Items.	Number of Cubic Foot.	Rate per Cubic Foot.	Amount.	Remarks.
			Rs. A. P.	
Balance of stock on 31st March 1872.	36,003	... ...	31,705 6 10	
Timber felled during year (Teak) ...	6,133¾	0 8 0	3,066 14 0	
Timber felled (Blackwood)	302½	0 6 0	113 7 0	
Increase in value of timber, by carting to depôts and alterations in yearly estimates of value	...	... ...	... ...	
Carting from Gundry to Mysore... ...	113½	0 5 0	35 7 6	
Increase in estimate of value at Gundry	286½	0 2 0	35 13 0	
Carting from Coorchart to Gundry ...	2,498	0 6 0	936 12 0	
,, ,, Coodracote to Manantoddy	1,260½	0 8 0	630 4 0	Teak.
,, ,, Coodracote to Manantoddy (Blackwood)...	124½	0 8 0	62 4 0	
,, ,, Manantoddy to Tellicherry	785¼	0 8 0	392 10 0	
,, ,, Coorchart to Mysore.....	6,782	0 9 0	3,814 14 0	
Excess realized by the sale of timber over last year's estimated value ...	21,422½	... ...	138 7 9	
Add errors in payment at Mysore ...	...	... ...	4 15 0	
Total...	...	... ...	40,937 3 1	
Deduct timber sold	...	21,223 10 9	... ...	
Timber supplied to Department Public Works	...	337 9 0	21,561 3 9	
Balance on 31st March 1873	...	... ...	19,375 15 4	

Synopsis of Financial Results for the years 1871-72 *and* 1872-73, *calculated according to the old system.*

Year.	Expenditure.	Receipts.	Result.	Difference in Value of Stock.	Net Result.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1871-72 ...	10,500 8 2	1,836 10 3	— 8,663 13 11	—13,352 11 0	—22,016 8 11
1872-73 ...	11,143 10 11	23,545 15 8	+12,402 4 9	—12,329 7 6	+ 72 13 3

SECTION V. B.

Financial Results deduced from the Estimation of the Value of Stock according to the expenses incurred in felling, conveyance, and superintendence.

	Cubic Feet.
I.—Quantity of stock at commencement of year	36,003
Add timber felled	6,436¼
Total Stock ...	42,439¼

II.—Expenditure incurred—

	RS.	A.	P.
Prime cost of stock in hand at commencement of year ...	22,501	14	0
Cost of carting and felling during year	3,180	5	0
Cost of superintendence (Establishment, etc.)	11,143	10	11
Total, Expenses ...	36,825	13	11

III.—Therefore, the approximate expenses of the department per cubic foot is 13 Annas 10 Pies.

IV.—The quantity sold was 21,787¾ cubic feet. The amount realized by this sale was Rupees 21,461-3-9. Approximately, therefore, the selling price was 15 Annas 9 Pies.

V.—Therefore the approximate gain per cubic foot on the quantity sold was 1 Anna 11 Pies.

VI.—Financial Result—

The amount gained is Rupees 2,609-15-10.

SECTION VI.

General Remarks.

26. *Establishment* consists of one Writer at Manantoddy, one Office Gumastah at Ootacamund, one Sub-Overseer for general work, one Assistant Overseer at the Mysore depôt, one Duffadar, and ten Peons.

27. *Health of the Establishment.*—There have been numerous cases of fever ; I myself have had about twelve attacks, and the writer has suffered repeatedly. All the Peons have suffered also at one time or other. The worst time in the year is during the early showers. There have been no epidemics. The Sub-Overseer who was acting at the commencement of the year was continually ill, and has been re-placed. One Peon has resigned from general ill-health.

28. *Forest Produce.*—I have had little or no success in the collection of forest-produce. It is difficult to detail satisfactorily the reasons for this want of success, since many complications enter in the proof. For instance, the character of the forest tribes, the Coorumbers, and their relations to Gowdas, Chetties, Moplas, and general merchants are difficult to understand clearly. There are valuable products in our forests, such as gall-nuts, soap-nuts, syakkay, saffron, and large quantities are collected every year partly by the forest tribes properly so-called, largely by Mysore merchants and Chetties and others holding land within or on the outskirts of our forests. Of the produce gathered by the forest tribes almost the whole amount is handed over to merchants or Chetties, who have acquired a hold over the gatherers. This hold is generally acquired by giving advances in money or more generally in ragi to the Coorumbers. The accounts are often (of this I have proof) largely over-stated, and at any rate the value of produce is hardly, if at all, placed as credit against the advance. Coorumbers are perpetually threatened in consequence of their state of debt, and in many cases become little more than slaves to Chetties. I have given advances for produce during the year, but have not received even the value of the money disbursed. On this subject the Native Magistrate remarked to me that the Coorumbers would always hand over the produce to Chetties or merchants in preference to the Government, partly from distrust of any official transaction, chiefly because they were more afraid of their immediate neighbours than of the Government, so that advances are often not worked out.

29. *Tukkul.*—Under this term are comprised the whole of the operations of ragi cultivation, as conducted by the Coorumbers in forest land. Their method of cultivation consists in clearing a

fresh patch of jungle annually and sowing raggi therein. The Bet-Coorumbers fell the whole of the timber on the patch to be cultivated. The Jain-Coorumbers, on the other hand, leave all the large trees. The latter, therefore, do infinitely less damage to a forest. I found it customary to allow tukkul, so I marked out this year land where the growth was small. I think, however, that the whole system is utterly opposed to the idea of forest conservancy if allowed in the unrestricted way that has hitherto prevailed. In France a somewhat similar system prevails, chiefly in the Ardennes. This is known under the name "Sartage." The operation is conducted there, however, almost entirely on coppice land, although certain standard trees are often reserved. The coppice is felled and removed. The small branches, brushwood, and useless trees are then spread over the surface of the soil between the stocks of the coppice and set on fire. Cereals are then grown for one or two years, and the coppice is afterwards allowed to grow. This custom dates at least from the time of Cæsar, and is pronounced not only not deleterious but actually advantageous. However, the conditions are peculiar ; the soil, for the most part, consists of slaty schist, which is somewhat decomposed by the effect of the fire ; the ashes, moreover, are said to contain nutritious salt, and to have the quality of attracting and retaining the moisture of the atmosphere. In the tropics, however, I think it may be considered a rule that the more the soil is covered, the less nutritious matter does it lose. Nevertheless, putting aside all general considerations, in the present state of Wynaad, destitute of large towns and without railways, the growth of firewood is not the object of a forest conservancy ; else this system of tukkul (provided that the trees felled were made use of, and not burnt as now on the ground) would not be altogether disadvantageous, since a crop of timber succeeds that would in a few years be of a good size for firewood billets. At present, the custom of the Bet-Coorumbers has the effect of destroying annually the growth of several years, and reducing high forest to the condition of bastard coppice, or at least to a growth of small and unsaleable timber. I therefore think that either the system of tukkul should be abolished altogether or, if the Coorumbers be judged to have prescriptive right to tukkul, that all trees above ascertained standard should be reserved under pain of penalty, or that something like the compromise known in France under the name of "Cantonnement" should be adopted. In this case, the Government compromises with parties having a prescriptive right to certain usages in the forest by giving over a part of the forest in entire possession to those having the right, and excluding them altogether from the rest of the forest. With a nomad tribe like the Coorumbers in the heart of a forest it is impossible for a small establishment to prevent damage in one or other direction.

30. *Survey.*—At present there are no accurate drawings to give in detail the boundaries of the Wynaad forests. Certain boundary stones were put down by Lieutenant Fullerton, formerly Deputy-Conservator for these forests, and a sketch map was made. It is impossible now even to find the stones in most cases, and the sketch map is not sufficient evidence to determine whether encroachments have been made. I have reason to believe that many boundary stones have been removed by adjoining proprietors and in some directions the boundary, even on the map, is stated to be unknown. I therefore think that one of the chief steps towards a strict conservancy has not yet been taken, and would venture to urge the sanction of a survey establishment in order once and for all to provide accurate official evidence as to the boundaries of the Wynaad forests.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) A. W. PEET,
Deputy-Conservator of Forests.

From J. FERGUSON, Esq., Deputy-Conservator of Forests, to A. MACGREGOR, Esq., Conservator of Forests, dated Nilambore, 23rd June 1873.

ADVERTING to the Board's Proceedings, dated 8th May 1873, No. 746, I have the honor to forward the annual administration report of the Nilambore Range for the official year 1872-73.

2. Timber logs felled during the year 1872-73 :—

Description of Logs.	Number of Logs.	Contents, Cubic Feet.	Value. RS.	A.	P.
Teak	312	6,027	4,520	4	0
Blackwood	12	278	208	8	0
Karimaruda	32	1,229	384	1	0
Benteak	86	2,391	597	12	0
Poomaruda	83	854	106	11	11
Poo. Pathery	5	66¾	8	5	6
Total ..	530	10,845¾	5,825	10	5

3. Cash realised by private sales amounts to .. .. .. RS. 16,841 15 10
And value of timber supplied to the Department of Public Works 303 10 3
Total .. 17,145 10 1

And balance of stock remaining on hand—

	RS.	A	P.
In Calicut Depôt	3,513	3	9
In Forest Depôt	11,514	1	0
Aggregating Total ..	15,027	4	9
On hand on 31st March 1873; and disbursements on account of sanctioned establishment	9,131	4	0
And on account of working charges	17,041	3	6
Total ..	26,172	7	6
Paid for Karimpoya and Amarapolliam forests ..	80,000	0	0
Total	1,06,172	7	6

4. PLANTATIONS.—Teak seedlings planted out during the year in Chathanboria (or the site lately purchased from N. Soobramania Nambudripad 2,35,000 ; the soil is excellent, and the plants healthy.

5. Forest demarcation and survey operations have been carried out and completed at Amarapolliam and Karimpoya blocks, purchased from Amarapolliam Rajah.

6. Floating operations for the year—1,057 logs of timber of sorts, 11,343 saplings, and 21,811 bamboos have been forwarded to Calicut Depôt during the year.

7. Operations—

2,35,000 Teak seedlings planted.
1,540 acres weeded.
235 acres hoed.
800 acres pruned.
130 acres felled.
235 acres piled and burnt.
530 Logs of Teak and jungle-wood felled.
1,057 Logs of Teak and jungle-wood floated to Calicut Depôt.
29,000 Saplings felled.
12,942 do. collected.
11,343 do. floated to Calicut Depôt.
21,811 Bamboos felled and floated to Calicut Depôt.
526 Logs fire-traced.
13½ Miles of fire-tracing, ten feet wide.

Financial Results.

Expenditure.

A.—Conservancy and Working.

	Rs.	A.	P.	Rs.	A.	P.
I. Timber expenses, felling, *etc.* ..	6,221	11	10			
II. Purchase of tools and plants ..	276	7	4			
IV. Rent of leased forests	80	0	0			
VI. Plantations	10,062	2	5			
VIII. Survey Forest demarcation ..	106	6	0			
IX. Experiments	48	11	0			
X. Communications	245	12	11			
Total Working Charges				17,041	3	6

B.—Establishment.

I. Pay of Executive Officer	3,600	0	0			
II. Forest Conservancy Establishment	3,356	14	8			
III. Timber working and Depôt ..	936	0	0			
IV. Travelling allowance of Executive Officer	1,118	11	4			
V. Office Contingencies	119	10	0			
Establishment Charges				9,131	4	0
Total disbursements during the year 1872-73..				26,172	7	6

Receipts by Sale of Timber, etc.

990 Logs of timber containing 19,134¾ cubic feet ..	7,805	9	2			
11,229 Saplings	7,378	14	0			
20,276 Bamboos	1,703	6	11			
125¾ Bandy-loads of fire-wood ..	251	8	0			
On account of boat-hire ..	6	4	0			
				17,145	10	1
Balance against Forests				9,026	13	5
Value of stock on hand on 31st March 1872	17,204	1	2			
Do. do. felled during the year 1872-73	13,459	12	9			
Total..	30,663	13	11			
Deduct timber sold during 1872-73.	17,145	10	1			
Balance..	13,524	7	10			
Add difference between nominal value and the actual amount realised	1,502	12	11			
Balance on hand on 31st March 1873				15,027	4	9

Particulars of Balance.

Stock in market Depôt.

158 Logs of timber, containing 3,540 cubic feet	482	11	9			
1,489 Saplings	3,030	8	0			
				3,513	3	9

Stock in Forest Depôt.

526 Logs of timber, containing 13,767 cubic feet	8,592	1	0			
5,844 Saplings	2,922	0	0			
				11,514	1	0
Total..				15,027	4	9

A

Year.	Felling Charges.	Cost of Transport to, and storing charges in, market Depôt.	Total.
	RS. A. P.	RS. A. P.	RS. A. P.
1872-73.	1,272 5 0	4,949 6 10	6,221 11 10

B.

Division of Range.		Description of Timber and other Forest-produce.	Number of Cubic Feet.	Rate per Cubic Foot.	Total Valuation.	Remarks.
				RS. A. P.	RS. A. P.	
Nilambore.	588	Logs, Teak	13,566	0 12 0	10,174 8 0	Stock on hand at the commencement of the year 1872-73; stock felled since and sold during the year inclusive of stock balance on hand at the end of the year 1872-73.
	37	„ Blackwood ..	927	0 12 0	695 4 0	
	186	„ Karimaruda..	5,393	0 5 0	1,685 5 0	
	281	„ Erool	7,160	0 4 0	1,790 0 0	
	484	„ Benteak	13,396	0 4 0	3,349 0 0	
	90	„ Poomarida ..	1,079	0 2 0	134 13 11	
	5	„ Poopathery ..	66¾	0 2 0	8 5 6	
	23,062	Saplings	....	0 8 0	11,531 0 0	
	25,912	Bamboos	%	5 0 0	1,295 9 6	
		Total..	41,587¾	.....	30,663 13 11	

C.

Description of Timber or other Produce, Number of Cubic Feet or Maunds sold, and Rate of Valuation per Cubic Foot or Maund.				Total Valuation.	Total Amount realised.	Difference.	Explanation of Difference.
No.	Description.	C. Ft.	Rate.				
			RS. A. P.	RS. A. P.	RS. A. P.		
196	Logs, Teak	2,684	0 12 4	2,013 0 0	2,070 14 9		
22	„ Blackwood .	302	0 13 8	226 8 0	257 2 7		
141	„ Karimaruda	2,772	0 7 1	866 4 0	1,225 5 10		
368	„ Benteak ..	8,321	0 5 2	2,080 4 0	2,698 9 11		
173	„ Erool	4,054	0 5 4	1,013 8 0	1,421 5 10		
85	„ Poomarida .	925	0 2 2	115 10 0	123 12 9		
5	„ Poopathery.	66¾	0 2 0	8 5 6	8 5 6		
11,229	Saplings	each.	0 10 6	5,614 8 0	7,378 14 0		
20,276	Bamboos	%	8 6 10	1,013 12 9	1,703 6 11		
125¾	Bandy-loads of fire-wood.	....	2 0 0	251 8 0	251 8 0		
	Total..	....	.....	13,203 4 3	17,139 6 1		

D.

No.	Description of Timber or Forest-produce.	Number of Cubic Feet.	Rate per Cubic Foot. RS. A. P.	Total Valuation. RS. A. P.	Remarks.
276	Logs, Teak	7,539	0 12 0	5,654 4 0	Balance at the commencement of the official year 1872-73.
25	„ Blackwood	649	0 12 0	486 12 0	
154	„ Karimaruda	4,164	0 5 0	1,301 4 0	
281	„ Erool	7,160	0 4 0	1,790 0 0	
398	„ Benteak	11,005	0 4 0	2,751 4 0	
7	„ Poomarida	225	0 2 0	28 2 0	
10,004	Saplings	each	0 8 0	5,002 0 0	
3,809	Bamboos	%	5 0 0	190 7 2	
	Total..	....	.....	17,204 1 2	
393	Logs, Teak	9,737	0 12 0	7,302 12 0	Balance at the closing of the official year 1872-73.
15	„ Blackwood	410	0 12 0	307 8 0	
107	„ Erool	2,604	0 1 8	268 1 2	
116	„ Benteak	2,952	0 3 10	706 10 2	
46	„ Karimaruda	1,444	0 5 0	451 12 2	
7	„ Poomarida	160	0 3 9	38 1 3	
7,333	Saplings	each	0 12 11	5,952 8 0	
	Total..	....	.....	15,027 4 9	
	Add total valuation and forest-produce felled during the year as per column 6, Statement B.	....	30,663 13 11		
	Deduct total valuation of timber, *etc.*, sold during the year as per Statement C	....	17,139 6 1		
	Total..	....	13,524 7 10		
	Add difference between the nominal valuation and the actual amount realised	....	1,502 12 11		
	Compare remainder with total of column 5	....	.....	15,027 4 9	

9. *General Remarks.*—During the year under review, floating operations were conducted through the Tahsildar of Ernad Taluq, 1,057 logs of timber and 11,343 saplings with 21,811 bamboos were transported to the market depôt at Calicut, leaving in the forest unfloated 123 logs of Teak, 3 Blackwood, and about 9,000 saplings; these, with the stock felled during the year, now require to be sent down during the monsoon or wet season.

Planting was carried out successfully, about 235 acres having been planted on the site lately bought from N. S. Nambudripad. The soil is excellent, and the plants are healthy and thriving. Pruning has also been judiciously carried out; about 1,120 acres have been pruned. This operation is much increased from the strong lateral powers of shooting the Teak tree possesses, and has to be continued up to 20 years old and occasionally up to 30 years or more.

Weeding has been carried out properly in all the younger plantations, but from want of funds the older ones were not weeded, and from age and previous repeated weedings the undergrowth in them is not so strong as in the young plantations. Two new blocks of forest land at Amarapolliam and Karimpoya have been purchased during the year from Amarapolliam Rajah, and the former block contains nearly one hundred acres of young Teak systematically planted, and is growing vigorously. These two, with the block obtained the year before from the Nambudripad, contain an area of nearly six thousand acres; both soil and situation are excellent, being well intersected with rivers capable of floating timber.

The health of the establishment has been moderately good during the year.

The officer in charge obtained one month's privilege leave from 7th April and also one month on other duty on the Nilgiris (a report on which is separately submitted) and resumed duty from the 7th instant.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) J. FERGUSON,

Deputy-Conservator.

ORDER THEREON, 24th April 1874, No. 503.

Financial Results.—The forest receipts during the year 1872-73 amounted to Rupees 4,18,767, being within a few rupees of the total* of the previous year. The expenditure, on the other hand, was far higher, being Rupees 4,78,147 against Rupees 3,45,717 in 1871-72. There was thus an apparent deficit in the year of Rupees 96,670, but the Board explain that among the charges under the head Plantations is included the sum of Rupees 1,00,000 paid for land in Malabar, and that, excluding this item, the receipts were Rupees 40,620 in excess of the ordinary charges. This sum, however, is not the real profit of the year's working, for, when the decrease of stock is taken into account, it is reduced to Rupees 3,330, as shown in the following table:—

* Rupees 4,18,883.

Years.	Receipts.	Charges.			Net.	Increase or Decrease of Stock during the Year.	True Results of the Year.	Remarks.
		Conservancy and Working.	Establishment.	Total.				
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	
1872-73... ...	4,18,767	* 2,03,735	1,74,412	3,78,147	40,620	— 37,290	3,330	*Deducting Rs. 1,00,000 spent in purchasing 2 tracts of land for plantations in Malabar.
1871-72... ...	4,18,883	1,94,814	1,50,903	3,45,717	73,166	4,960	78,126	
Increase or Decrease.	— 116	8,921	23,509	32,430	— 32,546	— 42,250	— 74,796	

2. The returned yield of the forests is not complete, owing to some districts not having sent in any account of the free felling. There is also a want of uniformity in the return, which is confusing, and the Board should prescribe for universal adoption a standard measure for each head in it. The amount of timber, etc., felled departmentally and that removed on the license and voucher system is shown below and compared with the return for 1871-72.

Statement showing the Quantity of Timber felled departmentally and disposed of under the License and Voucher System for the official Years 1871-72 *and* 1872-73.

Descriptions.	Departmental Felling.				License and Voucher Felling.				Increase or Decrease.			
	1872-73.		1871-72.		1872-73.		1871-72.		Departmentally.		License and Voucher.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
Timber	c. f. 64,307 logs. 531	38,496 14 1	c. f. 90,169½	.....	c. f. 473,377 b. l. 3 No. 70	64,016 9 4	c. f. 405,655¾	.....	c. f. —25,862¼ logs. 531	.....	c. f. 67,721¼ b. l. 3 No. 70	.....
Firewood and Railway fuel.	tons, 120 M. 365	1,154 10 2	tons. 26,803½	.....	tons. 35,990 c. l. 4,757 M. 59,383	82,044 9 4	tons. 18,905	.....	tons. —26,683½ M. 365	.....	tons. 17,085 c. l. 4,757 M. 59,383	.....
Charcoal	.....	... ...	.....	.....	tons. 935 c. l. 27,664	5,091 2 9	.....	.....	.....	.....	.....	.....
Bamboos	No. 16,000	480 0 0	.....	.....	c. l. 45,080 No. 205,100	27,847 13 1	c. l. 28,985¼	.....	No. 16,000	.....	c. l. 16,094¾ No. 2,05,100	.....
Sandalwood ...	M. 15,329	29,491 0 0	M. 14,528	.....	.....	... ...	.....	.....	M. +291	.....	.....	.....
Red Saunders ...	c. f. 4,281	13,252 1 3	lbs. 785,925	.....	.....	... ...	.....	.....	.....	.....	.....	.....
Total...	.....	82,874 9 6	.....	.....	.....	1,79,000 2 6	.....	.....	.....	.....	.....	.....

3. The Board observe that the working charges connected with departmental operations exceed the receipts; but they also qualify this observation by showing that part of the working charges are really debitable against the receipts credited to the license system. They have, in their calculation, charged to departmental working a share of the establishment, etc., but the Government quite agree with them in thinking that, with the information as yet available, no correct estimate can be formed as to the profits of the different systems of working. The Board have desired Collectors to allude to the subject in their next Administration Report, and, when doing so, it will be necessary for them to separate the expenditure on plantations and forests not worked at all from that on forests worked on different systems, as well as to distinguish, as far as possible, the share of charges and receipts to be borne respectively by the latter. For the purpose in view, a modification of the present mode of valuing the timber felled departmentally will be necessary. The timber that has not reached a market depôt must be valued as at present, but the stock that has should be valued at the rates which have been actually paid for similar wood sold in the year under report.

Indeed, the question of the general introduction of this or of some other alteration in the existing system of valuation should be considered by the Board with reference to the remarks of the Collector of Malabar on this subject.

4. The information which the Board propose to obtain regarding the fuel-reserves should be supplemented by a short statement showing the quantity of fuel taken by the Railway Company from the reserves that have been formed for its supply, and, in the general return, the firewood taken for railway purposes should always be distinguished from that sold to private individuals. The Government are aware that some of these reserves are not at present in a position to be worked, having been formed out of forest of which the denudation had been so recent and complete as to demand many years for its re-production; but they do not wish it to be lost sight of that some return for the labour and money expended will be expected.

The Government proceed to review briefly the district reports:—

5. *Ganjam.*—The revenue from the forests in this district was Rs. 3,677 against an expenditure of Rs. 3,135. It was less than had been anticipated, and the Collector accounts for this by saying that the produce of Government forests is undersold by that from certain Zemindaris.

The amount of timber taken by the Department Public Works is very small. The Collector's attention should be drawn to paragraph 2 of G. O., 16th April 1872, No. 609, and he should be directed to confer with the District Engineer on this matter, and consider whether the requirements of the department can be met. If this be found impracticable, the reasons should be stated.

6. *Cuddapah.*—These forests were financially more successful than those of any other district, except Salem, and the profits on the year under review amounted to Rs. 42,765. The consumption of firewood by the railway is enormous, and an extension of the reserves is imperatively demanded. The claims of the Shrotriemdars require careful investigation, and any future correspondence on the subject should be submitted to the Government. His Excellency the Governor in Council notices with satisfaction the interest taken by Mr. Horsley in the forests under his control and the testimony that is borne to the Deputy-Conservator's zeal and efficiency.

7. *Kurnool.*—These forests realized Rs. 22,109, but complaints of being undersold are raised here as elsewhere. In the matter of firewood, this will probably be rectified by the recent orders reducing the seigniorage, and the question of a reduction in the rates charged for timber should receive the Collector's attention.

G. O., 31st October 1873, No. 1,225.

The state of the plantations is not satisfactory, and it seems probable that neither the soil nor the climatic conditions of the sites are suitable. It is remarked that the (late) Conservator in his report for 1870-71 stated that "plantations are not required in this range," though he seems previously to have been of opinion that Teak should do well. The Government notice that the Inspector considers the forests of the Nallamallays "by far the finest tract on the eastern side of the Presidency."

8. *North Arcot.*—The receipts in this district exceeded the expenditure, but on the *year's* operations there was a deficit of Rs. 987. The reserves promise to be a great success, and the plantations also seem to have done better than in other districts. The Government will expect to hear a much more satisfactory account of the general arrangements made to protect the existing reserves and to select others.

9. *South Arcot.*—The expenditure in these forests exceeded the actual receipts by Rs. 5,374. The report, however, of the Deputy-Conservator shows that there was a great deal of successful planting effected, and the remuneration, though not immediate, seems nevertheless assured. At the same time, the Government do not understand why the fear of departmental disputes should have prevented any attempt at profitable felling, and the attention of the Collector should be drawn to the Deputy-Conservator's statement on this point. The Government regret to hear that the health of the establishment was so bad. Endeavours must be made to improve it by the selection of the least unhealthy localities for depôts and by the provision of good houses and good supplies. The question of expense must not be allowed to stand in the way of the adoption of such precautionary measures as are suggested by experience.

The Government note with approval the energy and activity displayed by the Deputy-Conservator.

10. *Tanjore and Trichinopoly.*—The work of the Forest Department in these districts is mainly confined to the preparation of fuel plantations for the use of the railway. Little has been done in Tanjore, and the plantation that did exist at Negapatam seems to have been abandoned.

In Trichinopoly, some expensive attempts at the formation of plantations have been made, but the Government regret to notice that the Inspector does not speak favourably of the result. The Acting Collector expresses no opinion on the subject, but confines himself to forwarding a copy of certain brief instructions conveyed by him to the Deputy-Conservator in the form of a Proceedings.

The Inspector is of opinion that planting operations must be undertaken on a larger scale, but, in the absence of all information as to the basis of those calculations of Colonel Morgan's, which are advanced as the ground of that opinion, the reasons assigned are not convincing.

The extension of the line will have its wants met by the Madura forests, and the line to Negapatam is all that need be considered. The Acting Collector should

be instructed to confer with the Acting Inspector of Forests and the Railway officials, and submit his matured opinion on the subject, as well as on the necessity of maintaining the establishment on its present scale.

11. *Madura.*—The year's operations in this district were carried on at a loss of Rs. 353. The item of "Timber expenses for felling, etc.," seems disproportionately high in comparison with the amount of timber returned as departmentally felled. Planting operations, on the other hand, have been most economically and yet successfully conducted. The Deputy-Conservator does not state what sort of trees form the plantation in the Pulney Taluq, but from former reports it would appear that they are Teak, and, if this is the case, their growth is most promising. The Government observe that the Deputy-Conservator recommends its further extension, and the results hitherto obtained would appear to justify operations being undertaken on a much larger scale than hitherto attempted. The Inspector of Forests, however, does not seem to have found time to visit it, and the Collector is quite silent as to his personal acquaintance with any of the forests or plantations. The matter should receive their particular attention.

12. *Tinnevelly.*—When the decrease of stock is debited to the year, its transactions are found to have resulted in an equilibrium. It is, however, noted that the Deputy-Conservator states that the estimated value of the stock in hand is in excess of what will be realized, as a reduction of the selling price is contemplated. From this it would seem that in this district the stock has not been valued, as directed, by what it has cost, but according to what it was intended to ask for it, and the Board should require an explanation on this point. It is observed that the Travancore Government is said to be able to dispose of its wood within (apparently) the limits of the Tinnevelly District by holding periodical auctions, and it is not clear why this method was not followed with the Government timber as indicated in the Order on last year's report. The measures taken by Mr. Puckle for the preservation of the forests that protect the water-supply are well intended, and similar measures might be advantageously followed elsewhere. At the same time, the restriction on department felling operations must not be too widely enforced.

13. *Coimbatore, Anamallay.*—The actual receipts of these important forests amounted only to Rs. 11,649, but when credit is taken for an increase of stock to the extent of Rs. 24,689, the year's deficit is reduced to Rs. 6,310. The Collector's explanation of the deficit is somewhat incorrect, as he has overlooked the fact that the timber in stock is now valued on a different mode to that formerly obtaining, and increases in value at each stage of its progress from the forest to the market. The Deputy-Conservator has shown most praiseworthy energy in preparing and bringing in the timber felled in previous years, and has thus been able to take credit for a considerable increase in the value of the stock which, at the close of the year, was estimated at over a lakh and-a-half of Rupees. Some of the timber had doubtless been sold, though not actually delivered and paid for; but the Deputy-Conservator's remarks on this subject show that there is not so large and steady a demand as could be desired. Steps* have been taken to ascertain the requirements of the Bombay market, and a trial shipment is to be supplied to the Admiralty;† but it is conceived that much could be done by a system of periodical auctions at

* G. O., 10th October 1873, No. 1,087.
,, 15th ,, ,, ,, 1,118.

† G. O., 27th October 1873, No. 1,195.

Ponani on the coast and possibly at Coimbatore or some other place in the interior. These sales would have to be held at regular intervals on dates fixed long beforehand and widely advertised.

It is satisfactory to notice that the importance of re-placing the timber felled is felt both by the Collector and the Deputy-Conservator.

The exclusion of cattle and herdsmen from the reserved forests will facilitate the re-production of the natural woods, as the young seedlings will no longer be eaten down by the one or be burnt up by the fires of the other. The danger to the forest depôts from the latter cause will also be avoided.

The Government regret to receive such a bad account of the health of the establishment. They can only repeat what they have already said on the same topic in the report from South Arcot, and the question of the selection of a healthier forest station than Tunicadavu is one that should receive early and serious consideration.

14. The Bolumputty forest was also under Mr. Douglas in the year under review, but he has since been relieved of the charge.

It shows a surplus on the year of Rs. 2,428, but no portion of the Deputy-Conservator's salary has been debited to it to the relief of the Anamallay forest. The Government observe that it was worked solely on the license and voucher system; but the policy of thus working a forest on which mainly depends the water-supply of so arid a taluq as Coimbatore seems a doubtful one, unless the trees to be felled are previously selected and marked by the department. It is, indeed, a question how far any denudation of these forests should be permitted, and the subject should receive careful attention.

15. The Sattimangalum, Bhowany, and Collegal forests form a portion of Colonel Morgan's charge. They were worked at a profit, but the Collector has taken exception to the mode in which the collections were swelled by the levy of seigniorage. He also does not think highly of the capabilities of the forests in the Bhowany Taluq as far as his personal observation has extended, and Colonel Morgan, it is observed, speaks of the necessity of forming fuel-reserves. The construction of the raft-channel at Nerinjepett has been decided upon solely through Colonel Morgan's representations as to the stability of the fuel-resources of these forests; and he must take every precaution to secure the action of the Government being attended with successful results.

The transactions in Sandalwood seem to have been very profitable, and the planting operations, though costly, appear to have been successful.

16. *Mudumallay and Seegur.*—To the former forest it has been customary to debit the full salary of the Deputy-Conservator, and to this heavy charge is due a considerable part of the year's deficit, which, including the decrease of stock, was Rs. 29,625. The stock of timber in depôt is very large, and efforts should be made to reduce it within more reasonable limits. The accounts given of the teak plantation in this forest and of the Sandalwood plantation in the Seegur forest are very encouraging.

17. *Malabar, Nelambur.*—As the executive charge of these plantations during the absence of the Deputy-Conservator devolved upon the Collector in the early part of the year, they were practically under his charge throughout the whole period now under report, and the activity displayed in the conduct of planting operations reflects great credit on all concerned. The Government are

much obliged to Mr. Macgregor for the trouble he has taken in compiling and submitting the valuable return in which is shown the financial history of these plantations. The subject is too comprehensive to be dealt with satisfactorily in an Administration Report, and they would be glad to have the information put before them in full detail in a separate communication, with an account of the plantations from the first and a map or chart prepared from the recent survey.

The Collector takes exception to the present mode of valuing the timber, but however pertinent his objections to it may be, it is obvious that uniformity is necessary, and that the system of the time being must be everywhere adhered to.

Wynaad.—In these forests as in those on the Anamallays, the vast amount of unmoved timber lying in different places precludes the work of the year being financially successful; but the Deputy-Conservator's intelligent and systematic mode of working augurs well for the future.

Chenat Nair or Paulghaut.—This range has formed a part of Mr. Douglas's charge for three years, and he records his opinion that the natural re-production of the forest is proceeding at a much slower rate than was anticipated. His remarks on the subject of fire-paths seem sound, and the matter should not be allowed to drop, now that he is no longer in a position to pursue it.

18. *Salem.*—The financial results in this district are better than those obtained in any other; the profit on the year's transactions having been Rs. 45,306. The Acting Collector speaks in high terms of the Deputy-Conservator, and the report of the latter contains evidence that his management is judicious, as well as successful in a revenue point of view. The system of removing the dead wood by contractors seems to have worked well, and its adoption in other districts should receive consideration. The ends for which the plan of bamboo depôts has been resorted to are worth securing, and when the results are reported some explanation of the mode of working should be offered.

The Acting Collector seems disposed to extend departmental felling, but his attention should be directed to paragraphs 6 and 7 of the order of Government on the report for 1871-72.

19. *South Canara.*—The year's profit was Rs. 9,534, but there seems to be an unexplained difficulty experienced in disposing of the timber. The Collector should give his early attention to the provision of land for depôts in convenient places, and when these are once fully established, their existence and the nature of their stock should be advertised. Too much reliance must not be placed on the powers of observation possessed by passers-by, but efforts must be made to push the sales. The Deputy-Conservator does not state why he was unable to supply the Department Public Works with the sawn timber they required, and the Collector must take concerted measures with the District Engineer to supply their wants in future.

(True Extract.)

(Signed) C. G. MASTER,
Acting Secretary to Government.

ANNUAL

ADMINISTRATION REPORT

OF

THE FOREST DEPARTMENT,

MADRAS PRESIDENCY,

FOR THE

OFFICIAL YEAR

1873-74.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.

MADRAS:
PRINTED BY E. KEYS, AT THE FORT ST. GEORGE GAZETTE PRESS.

1875.

134078

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ANNUAL REPORT

OF THE

FOREST DEPARTMENT, MADRAS PRESIDENCY,

FOR 1873-74.

THE Board resolve to submit to Government the Annual Report of the Forest Department for 1873-74.

2. The subject will as usual be treated under the following sections :—

SECTION I.—Inspection-tours of the Inspector of Forests.

SECTION II.—Reserves.

A.—Reserved Forests.

B.—Fuel Reserves.

C.—Plantations.

SECTION III.—Forests worked under the license and voucher system.

SECTION IV.—Yield of forests.

SECTION V.—Financial results.

SECTION VI.—General remarks.

3. SECTION I.—Colonel Beddome visited the Anamallay Range in June, and proceeded thence to Madura and Tinnevelly, returning to his head-quarters at the end of July. In September he visited Coimbatore and Madras, and in October and November, inspected Wynaad and South Canara.

4. From the 15th November to the 14th December, he was in the North Canara Forests and at Bombay, visiting the dockyards, etc., in accordance with G. O., No. 1,087 of 10th October 1873. In the latter part of December, he visited the Ghooty and Cuddapah Plantations.

5. On the 16th January 1874, he proceeded to Coimbatore and Madras, and he left the Presidency on furlough for two years on the 2nd February 1874.

6. From the 3rd to the 6th February, Captain Campbell Walker who had taken charge of the Office of Inspector on Colonel Beddome's departure was at Coimbatore, and he proceeded thence to Salem and Madras, where he arrived on the 10th and remained till the 26th, consulting with the Board and making himself acquainted with general arrangements. He then proceeded on a tour in the South Arcot District, and subsequently visited Trichinopoly and Coimbatore, returning to head-quarters on the 19th March.

7. It will be thus seen that out of twenty-three Forest Ranges, comprising fifteen Revenue Districts, ten were visited. Those not visited were Gumsur and Suradah, Golcondah, Kurnool, North Arcot, Bhowany, Collegal, Sathiamungalum, Mudumallai, Sigur, Mettapoliem, Bolumputty, Sholacarray, Nellumboor and Chennat Nair (Palghaut).

8. SECTION II.-A.—*Reserved Forests.*—The Board endeavored in vain to ascertain the superficial area of the forests in which timber is felled by departmental agency. In the first place, forests are not strictly reserved in all the districts for departmental felling, the same tract being in several cases worked as regards some trees by departmental agency, and as regards other trees by the license and voucher system, and even where tracts are set apart for one system or the other, it has been difficult to estimate their area with any accuracy. The accompanying Statements Nos. 1 and 2 show the timber, etc., felled and sold by departmental agency during the year under report, and subjoined is an abstract thereof in comparsion with the results of the preceding year. The Board regret that they are not able to give a uniform standard measure for each of the descriptions of timber, etc., as directed by Government in their Order, dated 27th July 1874, No. 133; but the instructions will be attended to next year.

—	TIMBER, &C., FELLED.				TIMBER, &C., SOLD.			
	Quantity.		Value.		Quantity.		Amount realized.	
	1872-73.	1873-74.	1872-73.	1873-74.	1872-73.	1873-74.	1872-73.	1873-74.
1	2	3	4	5	6	7	8	9
			RS.	RS.			RS.	RS.
Teak in ... ... C. ft.	19,466	49,994	11,842	36,159	43,421	83,345	78,788	1,13,321
Ebony or blackwood. do.	3,745	708	2,819	554	598	871	607	403
Rosewood ... ... do.	6,462	10,853	3,776	16,915	Not given.	8,651	386	24,393
Sandalwood in ... Mds.	15,329	14,321	29,491	26,254	17,228	12,758	57,627	44,660
Red Sander roots } C. ft.	4,082	19,872	13,252	12,220	593	2,183	23,947	1,870
or posts. } Mds.	82,447	77,440			24,071	306		
Other Junglewood used as timber in. C. ft.	34,634	54,106	19,662	24,111	38,871	29,719	26,242	24,095
Bamboos ... ... No.	16,000	No. 400 Bdy. loads 1,443	480	7,648	54,366	28,915	3,188	9,395
Railway fuel and firewood. } Tons.	120	1,783	360	2,653	586 Bdy.loads 126	1,006 Bdy. loads. 204	3,765	6,465
Saplings ... ...Logs.	581	44,750	393	20,818	11,229	14,495	7,379	11,294
Forest produce ... Mds.	365	297	794	357	160	301	690	4,502
Total...	.....	.....	82,874	1,47,689	.....	.....	2,02,619	2,40,401

9. From the above it will be observed that there has been an increase both in timber felled and in timber sold. The variations in the several forests are shown below :—

		Felling. Rs.		Sales. Rs.
Gumsur...	+	58	—	2
Kurnool	+	801	+	515
Cuddapah	—	2,196	—	20,064
North Arcot	+	1,497	—	2,716
South Arcot	+	121	—	144
Trichinopoly	+	625		.....
Madura	—	1,560	+	3,197
Tinnevelly	—	443	—	2,151
Anamallay	+	22,057	+	55,336
Bhowany	—	3,719	—	8,379
Collegal	—	1,010	—	1,620
Sathiamungalum ...	+	1,922	—	4,772
Mettapolliem	—	200		.....
Bolumputty		.....	+	2,378
Sigur	+	2,085	+	2,004
Mudumallai	+	3,286	—	4,141
Salem	+	7,582	+	14,132
South Canara... ...	—	10,825	+	3,523
Wynaad	+	1,818	—	5,632
Nelambur	+	43,499	+	7,158
Chennat Nair... ...	—	583	—	841
Total increase...		85,351		88,243
Total decrease...		20,536		50,462
Net...		64,815		37,781

10. The felling operations are generally proportioned to the stock on hand. As regards the sales, the variations are conspicuous in the forests of Cuddapah, Anamallay, Bhowany, Salem, Wynaad and Nelambur. The large decrease in Cuddapah is due to a great fall in the demand for redwood posts and stumps; that in Wynaad to the defective working of the contractor, of which the Collector has no doubt taken due notice, and that in Bhowany to the curtailment of the Budget and the consequent small progress made in felling sandalwood, and to the non-payment within the year of the price of certain timber supplied to the railway. The increase in Anamallay is owing to a large supply of rosewood to the Gun Carriage Factory, and in Salem to the establishment of depôts for the sale of bamboos, etc., and to the high prices realized by Atcha logs felled on the banks of the Cauvery. In Nelambur, the increase is due to larger sales of saplings from the plantations. The variations in the other ranges are comparatively small and call for no remark.

11. *B Fuel Reserves.*—The accompanying Statement No. 3 shows the area of each reserve, the amount expended on it, and the receipts obtained therefrom up to date.

12. The following is its abstract :—

No.	Ranges.	Area in acres.	Charges.		Receipts.	
			During the year.	Up to the end of the year.	During the year.	Up to the end of the year.
			Rs.	Rs.	Rs.	Rs.
1	Cuddapah	9,230	444	3,319	...	...
2	North Arcot	6,400	200	2,546	...	...
3	South Arcot...	34,750	2,674	6,526	341	349
4	Trichinopoly	258	829	2,330	1,067	1,067
5	Madura	*15,080	428	1,502	...	...
6	Tinnevelly	4,596	1,204	3,192	104	104
7	Anamallay	Particulars not given				
8	Mettapoliem	12,160	302	2,060	...	...
9	Bolumputty	1,010	753	10,976	20	20
10	Salem	13,764	1,867	14,576	89	109
11	Palghaut	1,712	532	532	...	...
	Total...	98,960	9,233	47,559	†1,621	1,649

* This does not include the area of the Sirumallai Reserve.

† It is not known how much of this is from the Railway. Collectors have been requested to give the information next year as required by Government in paragraph 4 of their Order, dated 29th April 1874, No. 503.

13. *Cuddapah.*—There are five Railway Fuel Reserves, comprising 9,230 Acres (in 1872-73 there were three comprising 4,133 Acres), and it is said that they are eminently successful, but that more are wanted. Each finished reserve has a nursery, and open spaces are planted from the nurseries or sown with the seed of useful trees.

14. *North Arcot.*—The Mamundoor Railway Fuel Reserve (2,560 Acres) continued to improve. The question whether the proposed Amboor Reserve (3,840 Acres) should be established is still under the consideration of Government.

15. *South Arcot.*—A detailed and interesting description is given by Mr. Wooldridge of the twelve reserves, with regard to which the Board have recently submitted a report to Government, and he seems to make out his case for the necessity of a second or Sub-Forester. The Inspector of Forests will give this point due consideration in preparing his proposals for a revision of establishments.

16. It is reported that a fire occurred on the southern slopes of Tenmallai for the first time since 1869, but no estimate is given of the damage that occurred.

17. *Trichinopoly.*—There are two fuel-reserves, one of which Lalapettai was called a plantation in the reports for 1871-72 and 1872-73, but it seems properly speaking to be a reserve.

18. *Madura.*—The fuel reserve at Punjathanghy Mallai (1,000 Acres) was being fenced. A large portion of Sirumallai and a tract of 16 square miles in Allaghiricovil Mallai were kept as open reserves. A fenced reserve of 6 square miles, Shengadagavundum Mallai was kept untouched; thirty-three Acres out of 135 set apart for a railway fuel-plantation at Sathengadu were sown with babool and other seeds.

19. *Tinnevelly.*—The thorn jungles along the line of railway are successful. They comprise 4,596 Acres of tank-bed, but Mr. Hayne calculates that 25 per cent. of this must be deducted for area covered by standing water. A lac of trees, two of which fill a cart, are ready to be cut. Mr. Hayne thinks that Mr. Theobald, a forester, who is now employed on the Anamallays, paid too little attention to mere fuel reserves, and too much to Jungle Conservancy; but Mr. Puckle speaks highly of Mr. Theobald, and says the thorn jungles require very little attention. A square mile of country covered with the umbrella thorn has been reserved near Tuticorin.

20. *Anamallay.*—A fuel-reserve, which promises to be most useful, has been established on a piece of ground long disputed between Coimbatore and Malabar. which has been finally assigned to Coimbatore. Mr. Douglas considers that it must be fenced, and that the fencing will be very expensive, especially if a right of way from the Numbudri Forest through the middle of the reserve is allowed. The Collector talks of making it an open reserve, and this is approved by the Inspector of Forests.

21. *Mettapoliem.*—There are three fuel-reserves in Mettapoliem. The M. Reserve contains 5 square miles and is protected by hills on one side. The H. Reserve contains 8 square miles and is protected by the river Bhowany on one side. The K. Reserve contains 6 square miles. The boundaries of all these reserves require to be rectified, and the fencing to be renewed or completed before they can become reserves in fact.

22. *Salem.*—The nine fuel-reserves which comprise about 13,764 Acres were carefully attended to, but the long-continued drought prevented much progress being made. There was an accidental fire confined to the clumps of bamboos which had seeded and dried up on the Pellaputty Reserve.

23. *South Canara.*—There are no fuel-reserves in the district yet, but there should be some, and the Board hope that the next Administration Report will show that considerable progress has been made in this direction.

24. C.—*Plantations.*—The accompanying Statement No. 4 shows the extent of plantations in each range, the number and description of trees contained

in them, and the cost and receipts during the year and up to date. The following is an abstract:—

Ranges.	Description of Trees.	Number of plantations.	Area in Acres.	Cost		Receipts	
				During the year.	Up to the end of the year.	During the year.	Up to the end of the year.
				Rs.	Rs.	Rs.	Rs.
Gumsur and Surada	Teak	1	31⅓	36	165	....	....
Cuddapah	Babool, Albizzia Lebbeck	5	1,728	2,671	37,105	....	....
Bellary	Babool, Melia Azaderacta	1	405	563	9,115	....	....
Kurnool	Teak and Mango	2	15⅓	479	1,464	....	....
North Arcot	Casuarina, Babool, etc.	9	1,345	5,568	25,947	369	369
South Arcot	Do. Satin, etc.	3	17	146	460	....	....
Trichinopoly	Do. Babool, etc.	5	422	5,333	12,288	952	1,352
Madura	Eucalyptus, Teak, etc.	4	50	975	3,946	....	....
Anamallay	Teak	2	16	1,655	2,598	....	....
Sathiamungalum	Sandalwood and Anatti	1	65	1,633	10,797	....	....
Collegal	Sandalwood	1	56	2,975	11,509	....	....
Bhowany	Firewood	1	Sq. yds. 64	234	608	....	....
Mudumallai	Sandalwood and Teak	5	18	533	3,985	....	....
Salem	Teak	2	70	2,405	17,929	....	....
Seegur	Sandalwood	1	14	1,386	3,468	....	....
South Canara	Teak	1	75	699	6,421	....	....
Nelambur	Teak and blackwood	1	2,990	21,954	2,00,118	11,280	94,250
Palghaut	Teak Tamarind	2	181	486	3,847	....	....
		..	7,471	....	....	....	....
	Acres	..	64	49,731	3,51,770	12,601	95,971
	Square miles	..					

25. The above statement has been prepared from the figures given by the Collectors.

26. With the exception of the Collector of Malabar, Collectors do not appear to have taken into account the proportionate general establishment charges debitable to Plantations, and in some cases the figures now given by the Collectors slightly differ from those entered in the monthly returns. It is important that there should be a separate account of receipts and charges prepared as accurately as possible for each plantation. The Officiating Inspector of Forests will be requested to examine the correctness of the plantation and fuel-reserve statements annexed to this report in his next official tour, and after examination submit a statement showing the annual cost per Acre of each plantation, including the proportionate general establishment charges.

27. He will consider and report how the latter should be apportioned on fuel-reserves and plantations, on departmental working, and on working under the license system.

28. The only method which occurs to the Board is to distribute establishment according to—

(1.) Sale-proceeds of timber felled, etc., departmentally.

(2.) Receipts under the license and voucher system.

(3.) The sum spent during the year on plantations and fuel-reserves.

29. He should also add columns to the statements to show the probable future expenditure necessary for each of the plantations and reserves, and the probable yield per annum, and the number of years within which the yield is likely to commence.

30. The Board will now notice the plantations of each district separately.

31. *Gumsur and Suradah.*—There is a small experimental teak plantation comprising 2½ Acres, and containing 160 teak trees, besides 120 of other sorts. In the dry weather, water has to be brought from a place a mile away. The Board are inclined to think the plantation must be simply useless.

32. *Cuddapah.*—There are five plantations comprising 1,728 Acres, one of them as an experimental Red Saunders wood-plantation at Coodur, which is thriving and contains 21,438 established plants. The Collector says he cannot understand what experiment was to be tried, as it was well known that that Red Saunders wood would grow there. The experiment, however, is meant to show whether Red Saunders wood can be grown at a profit artificially. Colonel Beddome believes that the plantation will be very remunerative. The four fuel-plantations were attended to, as well as they could be, with reduced allotments. The Collector again expresses his opinion that they are expensive and will be comparatively useless. He has been authorized to work by broadcast sowing instead of planting, and expenditure is being reduced to a minimum.

33. *Bellary—Ghooty Plantation.*—The great want in this district is water, and to meet this want, seven wells have been cleared and deepened. There are 62,000 plants established, but the history of the plantation reveals a continual struggle with an uncongenial soil and climate.

34. *Kurnool.*—The Wonkaram Plantation is again reported to be a great failure. Much of the soil is poor. The growth of trees is extremely slow. It is twelve miles from head-quarters. Expenditure has increased. The trees which have been fairly established already cost Rupees 2 each. The Inspector has been asked to give his opinion as to abandoning the plantation, but has deferred doing so till he visits the district. Unless the visit is likely to take place soon, the Board think it desirable that his opinion should be given at once. There is an appreciable expenditure, and it seems to be thrown away. The Muttikonda teak-plantation was successful so far as it went, and there was no expenditure on it, but it is very small.

35. *North Arcot.*—The nine fuel-plantations comprising about 1,345 Acres, and containing about 470,000 casuarinas, suffered severely from the drought, but continue to be successful. Receipts accrued for the first time and amounted to Rupees 369.

36. *South Arcot.*—The three plantations are very unimportant. It would be interesting to know the results of the experimental plantations of different sorts of trees at Chengum. The plantation at Trinomalai contains only 246 trees, and hardly deserves the name. The Chengum anicut plantation seems to be a great failure, and the Board doubt the expediency of keeping it up for Purasu trees.

37. *Trichinopoly.*—Operations such as clearing, planting, sowing, weeding, and improving wells, etc., were carried on vigorously in the plantations, but the season was so unusually hot and dry that the number of casualties and the expense of watering were great.

38. The Deputy-Conservator says "two hills close to the southern extension of the G. S. I. Railway, an open plain of 200 Acres near Trichinopoly, the Cauvery padugu measuring about 63 Acres at Kristnaroyapuram, two breached tanks about two miles from the same, measuring about 122 Acres, and the padugus on the northern bank of the Coleroon in the Udeiyarpoliem Taluq, measuring about 1,800 Acres, were recently made over" to the Forest Department on his requisition.

39. *Madura.*—The teak plantation at Vunnathiparai (5½ Acres unfenced) progressed. Acacia and Eucalyptus seedlings were transplanted at Kodikanel in tracts fenced and drained comprising 10 Acres. The Collector seems to be right in proposing not to extend this plantation. No new planting was carried out at the Palani Plantation (2¾ Acres), but it contains 2,112 teak trees.

40. *Anamallay.*—There were heavy casualties in the teak plantation at Moodi and Toonacadavoo. They cannot be compared with the plantations at Nelumbur, but it is suggested that slower growth may produce better timber. Mr. Douglas seems to anticipate improvement in the future. The Board observe that the Inspector has recommended that there should be no further extension of teak planting where there are indigenous forests in which it can be reproduced.

41. *Sathiamangalem.*—The plantation where there is a great deal of sandalwood and a few Anatti plants is thriving.

42. *Collegal.*—Active progress was made with the Bylore sandalwood plantation. Altogether 56 Acres are planted with 38,000 plants, and 10 Acres more are

ready for planting. An anicut and channel, which will reduce the cost of watering were being made.

43. *Bhowany.*—An experimental fuel-plantation was kept up, and is in a flourishing condition. A substantial well was dug.

44. *Sigur.*—The new sandalwood plantation at Sigur, which already contains 14,000 plants, flourished. Seven Acres were cleared and ready for planting.

45. *Mudumallai.*—There is a flourishing teak-plantation at Benni, which is to be rapidly extended, and another, not so fortunate, at Mudumallai. Altogether [illegible] and 10 Acres are cleared and ready for planting. 70,000 trees are planted [illegible] part of his work.
Colonel Morgan attaches great importance to this [illegible]oned, and that at

46. *Salem.*—The plantation at Putchoor has been aban[illegible] Yelagiri, a most unhealthy place, seems to be a failure. The Kanaganavasoondur[illegible] Plantation which only contains 3 Acres at present, but which will be extended, was successful, and so was the experiment in growing sandalwood plants, which is being conducted in the compound of the office at Denkincottah. The little garden on the Shervaroys was in the same condition as in former years, but it is not given up, because the gardener is a forest watcher whose services could not be dispensed with.

47. *South Canara.*—Work seems to have been carried on actively in what is called the Parapa Plantation which is rather a reboisement than a plantation Teak planting was extended, undergrowth and inferior trees were cleared out, and good trees were pruned. Work was also done at the Hospett Plantation, but no details are given. Casurina planting on the beach south of Mangalore failed, and the Collector attributes the failure to neglect, though the Deputy-Conservator holds an entirely different opinion.

48. *Palghaut.*—A little planting was done in the Nochipully and Puleampully forest plantations (181 Acres) which the Collector proposes not to plant further. Fire traces were opened through them.

49. *Nelumbur.*—This range consists of some 35,000 Acres of natural forest, through a great part of which it is intended to plant teak, and of 2,990 Acres actually planted. The Deputy-Conservator gives an interesting description of he tract which he divides into ten blocks. Most of the natural forest requirest long rest. Work was vigorously p rosecuted. 128,000 teak seedlings were planted out, and this is in excess of the standard number, though less than the number planted out in 1872-73 by 107,000. The receipts and charges both increased. The number of saplings felled and collected was nearly half as large again as in 1872-73, and the Collector observes that this is satisfactory, as the proceeds are a direct return from the plantations obtained by judicious thinning. The seigniorage due for four years was paid in a lump. The cost of weeding the large extent of land planted out in 1872-73 was great. The Probationary Assistant added to the cost.

50. As the Collector distributes the cost of establishment, there was an excess of expenditure over receipts of Rupees 6,660 in the existing plantation, an expendi-

ture of Rupees 3,840 in extending them by 128 Acres, and an excess of receipts over expenditure of Rupees 3,890 in working the natural forest.

51. SECTION III.—*Forests worked under the License and Voucher System.*—Statement No. 5 shows the collections in each forest under this head, and the following is an abstract of it in comparison with the results of the preceding years:—

Description of Timber, etc.	Measurement.	Quantity.		Amount realized.	
		1872-73.	1873-74.	1872-73.	1873-74.
				RS.	RS.
Teak	Cubic feet.	56,209	5,080	5,183	1,270
Ebony or black wood	Cubic feet.	261	200	85	50
Rosewood	Cubic feet.	240	80	60	20
Junglewood	Cubic feet.	472,876	602,681	58,541	59,518
Firewood	Tons.	35,990 c. l. 4,673	38,139	79,510	74,698
Charcoal	Tons.	935 c. l. 27,664	4,938	5,091	9,202
Bamboos	C. loads.	45,080 No. 205,100	40,228 No. 193,700	27,848	28,863
Palmyras	No.	74	14	147	28
Forest produce	Maunds.	59,383	25,751	2,535	9,261
	Total...	...	...	1,79,000	1,82,910

52. SECTION IV.—*Yield of Forests.*—The accompanying Statement No. 6 shows the total yield of each forest, *i. e.*, the quantity of timber, etc., sold or removed free of payment; and subjoined is an abstract thereof:—

Description of timber, etc.	Quantity removed by Departmental Working.		Quantity removed on License.		Quantity removed on Free Pass.	
	1872-73.	1873-74.	1872-73.	1873-74.	1872-73.	1873-74.
Timber ... Cubic feet.	68,588	116,633	529,586	608,041	93,446	413,547
Timber ... Maunds ...	97,776	110,661				Logs. 2,385
Firewood... Tons ...	120	1,783	35,990 c. l. 4,673	36,142	970	86,422
Bamboos... Cart loads.	No. 16,000	1,443 No. 400	45,080 No. 205,100	40,228 No. 193,700	2,302	5,150
Charcoal... Tons ...	...	...	935 c. l. 27,664	4,938	...	...
Forest produce. Maunds ..	365	297	59,383 c. l. 84	58,871	...	...
Palmyras... No. ...	...	...	74	14	...	...

53. The large increase in the aggregate taken is chiefly due to the greater accuracy of the present returns with regard to the timber, etc., removed free of payment.

54. SECTION V.—*Financial Results.*—The accompanying Statement No. 7 shows the receipts and charges during the year, and the following is an abstract:—

Head.	Receipts.	Amount.	Head.	Charges.	Amount.
		RS.			RS.
I.	Sale of timber, etc., removed by Government agency.	2,27,679	1.	Timber expenses for felling, etc.	83,113
			II.	Purchase of tools	1,572
II.	Proceeds from do. removed on license.	1,82,780	III.	Feed and keep of cattle, etc.	13,825
			IV.	Rent of leased forests ...	7,550
III.	Duty on foreign timber.	...	V.	Charges connected with the collection of revenue on	
IV.	Permit fees	11,446		grass, etc.	890
V.	Grazing dues	38	VI.	Plantations	47,002
VI.	Sale of fruits, babul pods, etc.	19,444	VI(A).	Railway fuel Plantations...	4,623
VII.	Sale of confiscated timber	4,340	VII.	Forest work, cutting of creepers, etc....	3,209
VIII.	Fines and forfeitures ...	32			
IX.		2	VIII.	Forests Survey...	1,436
X.	Miscellaneous receipts ...	3,782	IX.	Experiments to test the value of timber, etc.	57
			X.	Communications	12,093
				Total...	1,75,370
				Establishment and Office contingencies.	1,77,814
	Total...	4,49,541		Grand Total...	3,53,184

55. Excluding the receipts (14,222) and the cost (69,915) of plantations and fuel reserves, most of which have not yet commenced to pay, the transactions of the year show a working profit of Rupees 1,52,050, which seems to the Board very satisfactory.

56. The Collectors have not shown the estimated profits derived by working departmentally, as compared with those by working under the license and voucher system, as required by paragraph 27 of the Board's Administration Report for 1872-73.

57. The Board however estimate it as follows, apportioning the cost of the general establishment on the principle suggested in paragraph 28 *supra*.

Receipts.	RS.	*Charges.*	RS.
1. From the departmental working exclusive of the receipts from Plantations and reserves	2,26,180	Working charges...	1,23,278
		Establishment	82,665
		Total...	2,05,943
2. From Plantations and reserves ...	14,222	*Working charges...	51,202
		Establishment	18,713
		Total...	69,915
3. From working under the License system	1,82,910	Establishment	66,850
		Other charges	890
		Total...	67,740
4. Miscellaneous	26,229		9,586
		Establishment	
Total...	4,49,541	Total...	3,53,184

*Exclusive of Rupees 7,762 debited by the Collector of Malabar on account of establishments.

58. The Board are not quite certain whether the above apportionment of establishment charges is quite correct, and the Inspector of Forests will be requested to offer his opinion on the matter.

59. The total income and cost in each forest is shown below :—

Ranges.	Working charges.	Establishment and contingencies.	Total cost.	Receipts.	Difference.	Add or deduct the increase or decrease of stock.	Net results.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Gumsur and Suradah ...	464	2,574	3,038	2,876	— 162	— 27	— 189
Golcondah...	...	488	488	325	— 163	...	— 163
Cuddapah...	11,912	8,675	20,587	52,657	+ 32,070	+ 7,753	+ 39,823
Bellary...	303	336	639	...	— 639	...	— 639
Kurnool	2,660	8,406	11,066	31,854	+ 20,789	— 360	+ 20,429
North Arcot	7,962	10,218	18,180	16,899	— 1,281	+ 1,452	+ 171
South Arcot	3,623	6,351	9,974	5,609	— 4,365	— 337	— 4,702
Trichinopoly	6,769	3,268	10,037	1,227	— 8,810	+ 625	— 8,185
Madura	11,020	9,658	20,678	18,977	— 1,701	+ 657	— 1,044
Tinnevelly...	2,803	10,250	13,053	18,978	+ 5,925	— 1,171	+ 4,754
Anamallay...	23,599	12,282	35,881	67,825	+ 31,944	— 19,332	+ 12,612
Bhowany	15,400	3,426	18,826	18,609	— 217	+ 584	+ 367
Collegal	7,100	2,384	9,484	17,581	+ 8,097	— 417	+ 7,680
Sathiamungalam	5,000	1,928	6,928	15,904	+ 8,976	+ 1,996	+ 10,972
Mettapoliem	724	5,951	6,675	2,409	— 4,266	+ 100	— 4,166
Bolumputty	1,717	992	2,709	4,598	+ 1,889	— 2,076	— 187
Mudumallai	22,300	17,129	39,429	41,823	+ 2,394	— 29,181	— 26,787
Sigur...	2,500	300	2,800	2,194	— 606	+ 1,142	+ 536
Salem...	17,578	13,158	30,736	65,220	+ 34,484	— 561	+ 33,923
South Canara	6,740	10,631	17,371	20,914	+ 3,542	— 5,020	— 1,478
Wynaad	3,700	7,292	10,992	17,067	+ 6,075	— 812	+ 5,263
Nelambur	20,000	11,931	31,931	24,392	— 7,539	+ 20,662	+ 13,123
Cheunat Nair	1,496	1,361	2,857	832	— 2,025	+ 219	— 1,806
Central Office	...	28,825	28,825	771	— 28,054	...	— 28,054
Total...	1,75,370	1,77,814	3,53,184	4,49,541	+ 96,357	— 24,104	+ 72,253

60. The stock on hand at the commencement and close of the year is shown in the Statement No. 8. An abstract is given below :—

Ranges.	At the commencement of the year.	At the close of the year.	Difference. In favor of the year.	Difference. Against the year.
	RS.	RS.	RS.	RS.
Gumsur and Suradah...	811	784	...	27
Golcondah	...	...	...	...
Cuddapah	4,265	12,018	7,753	...
Bellary...	...	...	...	...
Kurnool	486	126	...	360
North Arcot	1,385	2,837	1,452	...
South Arcot	1,228	891	...	337
Trichinopoly...	...	625	625	...
Madura...	15,859	16,516	657	...
Tinnevelly	12,676	11,505	...	1,171
Ana[illegible]	1,6[illegible]261	1,42,929	...	19,332
[illegible]mallay	[illegible]	[illegible]	[illegible]	[illegible]
Bhowany	6,405	6,989	584	...
Collegal	3,081	2,664	...	417
Sathiamungalum	482	2,478	1,996	...
Mettapoliem	300	400	100	...
Bolumputty...	4,599	2,523	...	2,076
Mudumallai	1,05,694	76,513	...	29,181
Sigur	3,536	4,678	1,142	...
Salem...	7,277	6,716	...	561
South Canara	32,131	27,111	...	5,020
Wynaad...	19,514	18,702	...	812
Nelambur	15,027	35,689	20,662	...
Chennat Nair	1,351	1,570	219	...
Total assets...	3,98,368	3,74,264	35,190	59,294
Add increase in the valuation of timber... ...	26,367	...	...	...
Add valuation of timber felled as per Statement I.	1,47,689	...	...	...
Total stock...	5,72,424	...	...	...
Deduct total valuation of timber, etc., sold during the year	1,87,522	...	...	...
Wastage...	10,638	...	...	...
Balance of stock at the close of the year 1873-74...	3,74,264	...	...	...

61. From the above it will be observed that the stock on hand is but slightly less than at the commencement of the year.

62. *General Remarks—Ganjam.*—In Ganjam, the Gumsur and Suradah Forests are under conservancy. The quantity of departmental felling is small. Most of the wood cut is cut under the license and voucher system.

63. As in previous years, the Government department was undersold by the Zemindars of Korada and Konata, but the Overseer in charge thinks that the forests of those Zemindaries are being rapidly denuded, and that if a few more watchmen are allowed to protect the Government Forests where they touch the Zemindaries, traders will soon be compelled to resort to the Government Forests.

64. The forests are described by the Overseers as interspersed with villages and cultivation and subject to frequent encroachment.

65. *Cuddapah.*—No forests in Cuddapah are absolutely reserved, and the local officers think that reservation is not feasible, but there are railway fuel reserves which are tracts of forest, guarded and replanted in bare spots and kept untouched to meet future demand, and Red Saunders wood is always cut departmentally. There are similar complaints to those in previous years as to the encroachments of Shrotriemdars, and the drainage caused by fires and the depredation of cowherds. The Collector has been called upon to report as to the boundary dispute with Shrotriemdars. Patches of forests containing large quantities of Red Saunders wood should certainly be fenced and absolutely reserved as he proposes.

66. In the working of the forests under the license and voucher system, the Shrotriemdars who have private forests undersell Government, and the revenue is reduced accordingly, and will continue to be reduced till their forests are denuded. The Railway Company get their wood from contractors and pay Rupee 1 out of the price of each 1,000 lbs. as seigniorage into Government Treasuries. They took 17,430 tons and paid Rupees 39,043.

67. There was a very small demand for the Red Saunders wood in depots. This was partly because Shrotriemdars were underselling Government, but it seems to have been partly owing to a disturbance in trade. In the adjoining district of North Arcot, it is observed that there was a great demand for Red Saunders wood. In 1872-73, Rupees 17,920 was realized by the sale of Red Saunders wood alone in Cuddapah Depots. In 1873-74, the total realizations from all wood in depots amounted to only Rupees 1,819. The possibility of sending wood out of the district for sale must be considered. In the meantime, the collection of Red Saunders wood has been stopped.

68. The Collector thinks that very little wood was taken by the people without payment, though as much as was taken in head-loads (which require no passes) or clandestinely as with free passes. Mr. Yarde thinks the people are using free passes more as they get to understand the system better.

69. *Bellary.*—In this district the operations of the Forest Department are confined to the railway fuel plantation at gooty.

70. *Kurnool.*—There are 300 square miles of reserves on the Nullamallais between the Nundikanama and Elgode Ghauts. The whole had been kept open for five months in 1872-73, but they have been properly conserved since September 1872. The Basarapuram Block, which contains the best forest and had been kept open during the whole of 1872-73, was closed in August 1873. The Elgode Block was thrown open for a short time to enable merchants to recover advances they had made to Wudders for felling and carting wood. The Bakkipuram Block was opened for cutting and firewood stakes, apparently because the people in the neighborhood are so circumstanced that they would cut the wood surreptitiously if they could not get it in a legitimate manner. A block outside the reserves called Kistam Chetti Palley was also opened. Mr. Boileau expresses himself in favor of the voucher and license system as compared with departmental felling. His views as to

the places where depôts should be established for wood felled departmentally, and as to the possibility of floating wood down certain rivers, will of course be examined by the Inspector when he visits the district. A complete description of the blocks into which these reserves seem to be divided, indicating the number and the value of the trees contained and so forth, is much wanted.

71. The only " minor" forest product on which seigniorage is collected seems to be bark, and the amount is trifling. There is no obvious reason why this product should not be collected and sold by the Forest Department, though the levy of seigniorage is questionable. From Mr. Boileau's report it appears that the question involves considerations with regard to the Chentsuvars. The Board await the separate report promised by the Collector.

72. The purchase of Achayya's land has evidently had a great effect; but according to Mr. Boileau, there are numerous other cases in which what he calls obnoxious durkhasts" should be bought up. The Collector will report on the subject. Mr. Boileau also thinks that the grant of land in the forests to ryots should be absolutely prohibited, but this was done no doubt long ago.

73. Mr. Boileau believes that half of the revenue Government ought to get from wood cut in the forests is lost, and proposes that all officers of Government whether on the village or revenue establishment should assist the Forest Department by guarding bridges over canals and checking wood-carts. He thinks that more forest stations, a forest law, and the imposition of heavier penalties are wanted. He is further of opinion that the free passes' system works badly, that holders of free passes cut reserved as well as unreserved wood, and that the village authorities who issue the passes demand bribes in a way which prevents ryots from taking passes at all. The Collector doubts the existence of these evils, at all events to any great extent. There is one point, however, which seems to reduce the present system of checking passes to a farce. Mr. Boileau says that his peons cannot read or write and are unable to read passes, so that they cannot check them in any way. This seems to demand a remedy, and the Collector will report whether it is impossible to obtain the services of men who can read and write to some little extent as peons.

74. *North Arcot.*—There was no reserved forests in North Arcot, but under recent rulings the Tripetty Hill will probably become one.

75. All the forests were worked partly under the departmental system and partly under the license and voucher system, but it is intended to extend the former and restrict the latter. The private forests (Zemindari and other) embarrass operations. It is suggested that the list of reserved woods in North Arcot and the neighboring districts ought to be assimilated. The Inspector will be good enough to see if any change need be made.

76. Most of the firewood is taken without license in head-loads. This is contrary to the orders in force, and the Collector should endeavor to put a stop to it, as soon as he can, without causing hardship. Smuggling is still very prevalent, but perhaps less so than formerly.

77. *South Arcot.*—Operations in South Arcot seem to have suffered from a sickly season and drought, but the District Conservator was evidently most energetic.

78. His report is full of evidence, confirming the opinions expressed in Board's Proceedings, 1st September 1874, No. 2,470-150.

79. Most of the reserves and plantations ought clearly to be Imperial works. It is imperatively necessary that the whole of the district should be placed under Jungle Conservancy Rules. The practice of letting head-loads go free has had the effect the Board feared; seven bandy-loads a day are taken into Trinomalai in this way. The amount for the whole district is said to be 20,000 tons. The quantity cut on free passes is only enough for ninety families.

80. There is a gratifying increase in receipts under the license and voucher system, due to better conservancy. In South Arcot only the second-class jungle-wood and bamboos are felled under this system, and Mr. Wooldridge thinks it should be further limited to firewood and Avaram bark, but that this is impossible unless the same limit is in force in adjoining ranges. First and second-class wood is cut departmentally.

81. The three plantations are very unimportant. It would be interesting to know the results of the experimental plantation of different sorts of trees at Chengum.

82. The attention of the Collector should be directed to the reckless felling which Mr. Wooldridge asserts is going on under countenance from the Tahsildar of Tindivanam on the Pakkam Hill. If, as Mr. Wooldridge says, this tract is the only one within a moderate distance of the coast which contains trees fit for building purposes, it should be placed under the Forest Officer and carefully conserved.

83. *Madura.*—The Periacolum and Palani Forests were worked departmentally.

84. Measures to prevent the firing of jungles are said to be much required, and the Collector thinks that as fencing in such extensive tracts is impossible, he should be empowered to punish cattle-owners when fires occur, it being impossible to discover the cooly who caused the fire. This of course cannot be done without penal legislation, and the Board are disposed to think that it is impracticable to prevent fires in tracts which are not worth fencing or guarding with fire traces.

85. *Tinnevelly.*—All felling has been stopped in the forest which "clothes the heads of the streams that drain the hills between Courtallam and Papanasanam, and a path and fence are being made between this closed forest and the jungles on the lower slopes which are left to the villagers." Felling without passes is allowed in ten or twelve villages. The village jungles are controlled by Tahsildars and watched by village watchmen. The Deputy-Conservator thinks the system is a failure and has a bad opinion of the watchmen; but the Collector is satisfied, and so are the people. The operation of the system must be carefully watched to see whether the villagers are sufficiently far-sighted to prevent the jungles left to them from being denuded. North and south of the closed forest are forests in which the pass system is at work.

86. Both the Collector and the Deputy-Conservator think it of extreme importance that the Saptur Zemindar's boundary should be demarcated, but Mr. Puckle says the Zemindar cannot be forced to attend and will not show his boundary. The Board do not see why demarcation should not be forced on the Zemindar under the Boundary Act. The matter must be attended to at once, for vast tracts of forest have already been lost to the State in Tinnevelly for want of timely action in matters of this kind. The Collector will submit a special report on the subject.

87. *Trichinopoly.*—The jungles of this district are managed under the Jungle Conservancy Rules, and the Forest Department are in immediate charge only of the fuel reserves and plantations.

88. *Coimbatore.*—The Collector has been over all the forests of his district except those on the higher Anamallays, which are inaccessible; and has reported on such of them as are under conservancy.

89. Teak forests on the Anamallays are worked departmentally, but the slopes of the hills in that range are worked on the license and voucher system, which prevailed also throughout the Mettapoliem, etc., ranges and in the taluqs of Bhowany, Collegal, and Sathiamungalum under Colonel Morgan's charge except as regards sandalwood.

90. Where the license and voucher system prevails, the collections are either made through the Village Monigars, who issue the vouchers and get a commission of 5 per cent., whilst the Overseers issue the licenses, or are leased out to contractors.

91. The Collector has received no complaint with regard to free passes. The very moderate extent to which such passes are used seems to suggest that wood is often taken without passes, but few instances have come to notice.

92. The Board observe that the Collector's report would have been clearer if he had dealt with each forest range separately.

93. *Anamallay Range.*—The Government reserved forest contain about fifty and the leased forest about 30 square miles.

94. A large quantity of rosewood was felled and supplied to the Gun Carriage Factory. Much teak and other timber was secured by collecting logs lying hidden in the forest and utilizing trees which had been blown down, etc. The work was difficult, but the results were satisfactory. The best of the teak was obtained from trees abandoned after being partly cut up, which shows the need of supervising working parties carefully.

95. A great deal of dragging and slipping was done with Government elephants and a little with hired elephants. The cost per log dragged and slipped was for Government elephants Rupees 1-2-6 and Rupees 0-15-6, and for hired elephants Rupees 3-12-6 and Rupees 2-10-1.

96. The Government cart establishment, which was employed above ghaut, did work in collecting scattered logs which no contractor would have undertaken. Below the ghaut, it is cheaper to hire.

97. The greatest credit is due to the Deputy-Conservator, Mr. Douglas, and the Assistant Superintendent of Revenue Survey, Mr. Baber, for the judicious

energy shown in the demarcation and survey of part of the district boundary between Coimbatore and Malabar, and of the leased forest which is situated west of Toonacadavoo in Malabar. The Collector bears testimony to the difficulty of the work and the way in which it has been done. It is interesting to find that twenty Khadirs who placed themselves under the Deputy-Conservator in December 1872, and have worked well ever since, rendered invaluable assistance to the survey party. The work was both good and cheap. Operations began in September and continued till the middle of December.

98. The revenue derived from the reserved forest was Rupees 63,617, or Rupees 55,337 more than in 1872-73. This resulted from a settlement of accounts with Bombay, and the large sale of rosewood to the Gun Carriage Factory.

99. The programme of the year, which is given in the last report, was successfully carried out.

100. Good but inexpensive buildings were constructed six miles from Anamallay, two from the foot of the ghaut, and ten from Toonacadavoo, which will greatly facilitate supervision.

101. In the current year, well-considered experiments are being made with a view to discover the best places for depositing and selling timber, and a consignment is being sent to England at the price of Burmah Teak to determine whether a market can be found there.

102. The reports from the Collector and the Deputy-Conservator contain interesting information regarding the hill tribes in the reserved forest. The Chetties were allowed to go into it under certain restrictions, having filed a formidable set of documents supposed to represent claims against the Khadirs before the Deputy-Conservator. The Khadirs made no complaint. Some of them, as already stated, are working cheerfully and well under the Deputy-Conservator. They have been assured of their rights of ingress and egress and as to forest produce. Mr. Douglas has considered himself precluded from purchasing forest produce even when it has been offered to him.

103. The receipts under the license and voucher system in the lower slopes and less valuable forests of the range are increasing, but very slowly.

104. Mr. Douglas makes a careful comparison between the departmental and license systems. He thinks that the opinion expressed by Government that one system will be found to suit one class of forests and the other another class, summarizes all that is known of the subject at present. Great good is said to have resulted from orders issued by the Collector placing revenue and forest officials on proper terms with regard to each other, and prohibiting the alienation of jungle land for cultivation without the permission of the Collector who first consults his forest subordinates. An experiment is being tried with the view of restricting Kumari cutters from virgin forests.

105. *Sathiamungalum.*—The forest comprizes 500 square miles and is open for felling on the license and voucher system, though sandalwood and roots are worked departmentally.

106. The usual work was done in the way of felling sandalwood, digging up sandalroots, preparing and stacking in depôts, etc.

107. The sandalwood is said to be being gradually worked out, but the Board presume this only means that the mature trees are disappearing. There must be plenty of unripe trees. The tree is being grown artificially in the Tallamalai Plantation where there is a great deal of sandalwood, etc., and a few Anatti plants. It is thriving. The receipts of the forest are less than in 1872-73, but only apparently so, because of stock in hand procured from other forests which was sold in that year.

108. The right of collecting seigniorage is leased out, and the Collector *hopes* that communal rights are respected. The receipts were nearly four times what they were in 1872-73, and the Collector thinks this shows that the people were better supplied, though it may only prove greater activity on the part of the contractor. The Deputy-Conservator, Colonel Morgan, expresses an opinion that enormous loss to Government and damage to the forest is caused under the license and voucher system, and is in favor of exclusive departmental working with a depôt at Sathiamungalum, but the Collector remarks that the locality, a stretch of forest with a base of forty miles, is such that departmental working could not be economical, and that the wood under this system would be so dear, that the people would not be able buy it, and smuggling and widespread dissatisfaction will be the result.

109. *Collegal.*—This forest also comprises about 500 square miles, and is said to contain amongst other trees 5,000 teak, 3,000 blackwood, and 100,000 sandalwood. It is managed on the license and voucher system, except as regards reserved trees. The departmental system would be impossible.

110. Only sandalwood was felled, enough wood of other descriptions being in stock. It had to be carted thirty or fifty-five miles to the main depôt at Collegal. Some sandalwood and timber was sawn up.

111. Timber felled departmentally meets with no demand.

112. *Bhowany*—This forest is about 400 square miles in extent and is estimated to contain 5,000 teak, 10,000 vengay, 20,000 achawood, and 100,000 sandalwood trees. It is managed in the same way as the Collegal Forest, but the supply of fuel to the railway is one of the most important operations.

113. Sandalwood was felled, carted thirty-five miles to the depôt at Bhowany, prepared and stacked.

114. A large quantity of fuel was cut, sawn, and stacked on contract for the railway. 1,280 tons were carted to Nerinjeepett and Cauverypuram and carried on boats to the sawing depôts. The cost of floating was enormous, owing to mismanagement by the floating Overseer, and want of supervision by Overseer Grant. The floating Overseer has been dismissed, and an arrangement has lately received the sanction of Government, which will relieve Mr. Grant from the excessive work which seems to have prevented him from supervising the floating Overseer sufficiently.

115. Owing to this failure in floating, and the small quantity of fuel delivered to the railway in consequence, and to want of funds, the management of the forest was not a financial success.

116. The right of collecting the seigniorage on firewood has been leased out for a year with the consent of the Collector.

117. *Mettapolliem and Bolumputty Ranges.*—The Deputy-Conservator, Mr. Ross, thoroughly inspected his charge in all directions. His report on the subject is submitted to Government in Board's Proceedings, dated 23rd February 1874, No. 401. He says that the Copanairy Forests disappointed him, and are valueless without a ghaut which will be expensive and far more beneficial to Rajah Arracoorchy Nair than to Government. The Sholacarray Forest has been overworked and wants rest, but a small quantity of teak is to be felled in the current year. The Bolumputty Jungles contain some valuable timber, but roads are wanted. Planting has been tried in the Walliar tract, but has not been successful, and Mr. Ross thinks it should be stopped. Some fuel was cut departmentally in the Mettapolliem Forests when under Colonel Morgan's charge, and stacked at Mettapolliem for the Railway Company without making any previous arrangement with them, and they declined to take it.

118. The license and voucher system was in force even in the Sholacarray Forest which is now allowed to rest. In Mettapolliem, the collections were leased out to contractors, but this is no longer the case.

119. *Mudumallai.*— This forest which Government have secured on a ninety-nine years' lease, and the tract in the Wynaad which is worked with it, comprise about 300 square miles, and are estimated to contain amongst other trees, 40,000 vengay and 150,000 teak. The country is almost uninhabited, and there are no free passes.

120. Felling was limited with the view of getting rid of stock, but some teak was felled, dragged by elephants, and carted to the depôts at Karkana and Tippacadoo, and sawn up.

121. A small office and store-shed were built at Ootacamund.

122. Colonel Morgan states that the Collector of Malabar ruled, whilst the forest was under his charge, that Government had no right to lease out bamboos, but that all they could do was to cut them, and then give notice to the Rajah, and if the Rajah had not removed them three months afterwards, they might then (but not before) remove them and sell them. The Board wish further information on this subject.

123. The market for timber was dull, but the stock was reduced in value from Rupees 1,05,694 to Rupees 76,513, and Colonel Morgan anticipates that it will be exhausted, *i.e.*, the Board presume the *old* stock, by the end of 1874-75.

124. *Sigur.*—This forest comprises about 70 square miles, and is estimated to contain amongst other trees, 50,000 teak and 100,000 sandalwood.

125. Sandalwood was felled and sandalroots dug and carried to the depôt and cleared and prepared for sale. A little teak was also cut.

126. The seignorage on firewood, bamboos and velam bark was leased out to contractors. All timber was worked departmentally. There were no free passes.

127. *Salem.*—The Acting Deputy-Conservator, Mr. Brougham, was as usual energetic and judicious, and the Collector bears strong testimony to his qualification as a forest officer. Overseer Mahomed Alli Sahib seems also to have done extremely well.

128. The Denkencottah and Tripatore Ranges are looked on as reserved, but the License system is adopted for bamboos, firewood and charcoal, pending the establishment of convenient depôts. There was a large demand for bamboo, and some Acha logs sold extremely well.

129. The Salem, Ahtur and Namkul Jungles were worked chiefly on the license system. Some attempts were made to introduce departmental felling, but were stopped by contractors who, with the distinct intention of stopping it, combined to get wood from Mittadars and undersell Government.

130. The Collector deplores the delay in making the ghaut from Pennagaram to the Cauvery, which will open a new tract of forest. The questions as to the fuel supply of the railway are of the greatest importance in this district.

131. The season was most unhealthy.

132. *South Canara.*—In South Canara, the Deputy-Conservator was only on circuit for seventy-three days, and it is clear that too much writing was done, and too little forest work. The relations between the Conservator and the Deputy-Conservator were bad, and the report, like others which have been before the Board, leads them to fear that Mr. Cherry, disapproving of the recent change in Forest Administration, tried to make the worst of it and not the best. His conduct has been brought to the notice of Government in recent Proceedings, so that nothing more need be said about it here.

133. It is clearly necessary that the reserved tracts of forest between the mountains and the coast should be named and defined. Mr. Cherry calls them all reserves, but it is evident that many, if not most of them, cannot be so treated. The recent order of Government on the subject of proprietary rights in South Canara will settle the question in most cases. Little felling was done, but a large quantity of wood was carried from the forests to the coast.

134. There was a great falling off in the seigniorage on firewood, sandal farms and catechu. The decrease in firewood is said to be a consequence of the decrease in sandal-farms, and this results from the restrictions imposed on contractors to prevent reckless felling. The catechu tracts are exhausted and need rest, which must be secured by fencing and strict conservancy. The necessary orders have been issued, and the Board hope that energy will be shown in carrying them out.

135. The results of auctions of timber, etc., are said to have been satisfactory. 2,324 cubic feet of wood and 100 bamboos were supplied to the Public Works Department.

136. The financial results seem to have been very unsatisfactory. Mr. Cherry has prepared two statements, showing the results of forest work from as far back as possible, and net results from 1863-64. The statements are carefully drawn out, and Mr. Cherry's review of the results is very interesting. The Board will be glad to have the Inspector's views with regard to this part of the report.

137. The establishment evidently requires strengthening, but this will be of no use unless the Deputy-Conservator ceases to regard the Collector as an official altogether ignorant of forest matters, and belonging to an antagonistic department.

138. *Palghaut.*—This range was taken from the Deputy-Conservator of the Anamallays and placed under the Malabar authorities in July 1873. It is super-

vised by the Palghaut Tahsildar under the orders of the Head Assistant Collector. The forests were not worked. They require rest and need not be disturbed, because there is an abundance of forest belonging to private owners in the neighborhood. The only receipts derived were from the sale of timber felled clandestinely and confiscated. A portion of the Chennat Nair Forest was surveyed. Fire traces were opened through the Walliar Reserve (1,712 Acres). A system of working has been drawn up by the Collector in consultation with the Inspector of Forests.

139. *Wynaad.*—The Deputy-Conservator, Mr. Peet, seems to have been continually on the move throughout all parts of his range, and good work was done though the difficulties arising from a defaulting cart-contractor, indeterminate boundaries, the search for large quantities of timber felled years ago and still lying in the forests, and the position of the Poolpully Temple Forests were very great. At the end of the year, two elephants were lent for forest work by the Commissariat Department, and it is hoped that they will be of the greatest use in bringing the logs which lie scattered in the forests to the cart tracks.

140. Mr. Peet thinks the stock accounts as now kept are simply fictitious and should be revised, and he strongly urges the desirability of a grant for making huts in the forests, so that officers and peons may be able to live there for some time without the certainty of getting fever. These points have no doubt attracted the Collector's attention. With regard to forest produce, Mr. Peet adds his testimony to that of most forest officers, that the forest tribes are grievously oppressed by the Chetties who deal with them.

141. *Nelamboor.*—The operations at Nelamboor have been already noticed.

I.—*Statement showing the quantity of Timber felled departmentally in the several forests of the Madras Presidency for the official year* 1873-74.

Name of Ranges.	Teakwood.		Ebony or Blackwood.		Rosewood.		Sandalwood.		Red Sanders roots or posts.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
	C. FT.	RS. A. P.	C. FT.	RS. A. P.	C. FT.	RS. A. P.	MDS.	RS. A. P.	C. FT. AND MDS	RS. A. P.
Gumsur and Suradah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Goloondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	.....	.....	.....	.....	.....	.....	.....	.....	mds. 77,440 972	9,201 0 8 655 14 0
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Arcot	.....	.....	.....	.....	.....	.....	305	304 8 0	18,900	2,362 8 0
South Arcot	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	399	357 12 0	171	153 6 6	.....	.....	.....	.....	.....	.....
Trichinopoly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tinnevelly	45	33 8 0	.....	.....	.....	.....	.....	.....	.....	.....
Anamallai	13,749	11,270 10 4	.....	.....	10,800	16,900 12 0	.....	.....	.....	.....
Bhowany	.....	.....	.....	.....	.....	.....	2,710	4,742 8 0	.....	.....
Collegal	.....	.....	.....	.....	.....	.....	4,159	6,499 4 9	.....	.....
Sathiamangalam	.....	.....	7	3 10 0	.....	.....	4,360	7,331 1 4	.....	.....
Mettapoliem	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bolumputty	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mudumallai	4,382	3,286 5 0	.....	.....	.....	.....	.....	.....	.....	.....
Sigur	500	312 8 0	.....	.....	.....	.....	994	1,772 6 0	.....	.....
Salem	.....	.....	.....	.....	.....	.....	1,793	5,604 8 0	.....	.....
South Canara	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wynaad	9,997	4,998 4 0	.....	.....	.....	.....	.....	.....	.....	.....
Nelumbur	19,715	15,485 0 0	530	397 8 0	.....	.....	.....	.....	.....	.....
Chennat Nair	1,207	415 0 0	.....	.....	53	13 12 0	.....	.....	.....	.....
Total	49,994	36,158 15 4	708	554 8 6	10,853	16,914 8 0	14,321	26,254 4 1	mds. 96,340 cft. 972	12,219 6 8

Statement showing the Quantity of Timber felled departmentally in the several forests, etc.—(Concluded.)

Name of Ranges.	Other Jungle-wood used as Timber.		Bamboos.		Railway Fuel.		Saplings.		Forest Produce.		Total.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	12	13	14	15	16	17	18	19	20	21	22
	C. FT.	RS. A. P.	B. LOADS.	RS. A. P.	TONS.	RS. A. P.	NO.	RS. A. P.	MDS.	RS. A. P.	RS. A. P.
Gumsur and Surada... ...	2,527	638 0 4	.....	.....	.....	.....	.....	.....	.....	.....	638 0 4
Golcondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,856 14 8
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool	855	801 4 0	.....	.....	.....	.....	.....	.....	.....	.....	801 4 0
North Arcot	L. 146	98 12 0	.....	.....	.....	.....	.....	.....	.....	.....	2,987 8 0
	9,685	221 12 0									
South Arcot	2,010	700 14 2	.....	.....	.....	.....	.....	.....	17	7 5 7	708 3 9
Madura	5,847	5,246 8 9	.....	.....	.....	.....	.....	.....	.....	.....	5,757 11 3
Trichinopoly	.....	.....	.....	.....	470	625 0 3	.....	.....	.....	.....	625 0 3
Tinnevelly	272	210 1 7	.....	.....	.....	8 2 8	.....	.....	.....	37 7 6	289 3 9
Anamallay	1,021	532 14 8	.....	.....	.....	.....	.....	.....	.....	.....	28,704 5 0
Bhowany	120	60 0 0	.....	.....	1,280	1,920 0 0	.....	.....	.....	.....	6,722 8 0
Collegal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,499 4 9
Sathiamangalam	7	3 4 0	.....	.....	.....	.....	.....	.....	.....	.....	7,337 15 4
Mettapoliem	.....	.....	.....	.....	33	100 0 0	.....	.....	.....	.....	100 0 0
Bolumputty	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mudumallai...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,286 5 0
Sigur	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,084 14 0
Salem	10,353	7,948 9 2	1,443	7,627 12 9	.....	.....	.....	.....	280	312 6 0	21,493 3 11
South Canara	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wynaad...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,998 4 0
Nelambur	18,107	7,176 9 0	400	20 0 0	.....	.....	44,750	20,818 0 0	.....	.....	43,897 1 0
Chennat Nair	3,156	472 4 0	.....	.....	.....	.....	.....	.....	.....	.....	901 0 0
Total...	54,106	24,110 13 8	1,443 No. 400	7,647 12 9	1,783	2,653 2 11	44,750	20,818 0 0	297	357 3 1	1,47,688 11 0

2.—*Statement showing the sale of Timber, etc., in the several forests during the official year* 1873-74.

Name of the Range.	Teakwood.		Ebony or black wood.		Rosewood.		Sandalwood.		Red Sanders roots or posts.		Other jungle wood used as Timber.	
	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.
1	2	3	4	5	6	7	8	9	10	11	12	13
	C. FT.	RS. A. P.	C. FT.	RS. A. P.	C. FT.	RS. A. P.	MDS.	RS. A. P.	C. FT.	RS. A. P.	C. FT.	RS. A. P.
Gumsur and Surada ...	...	.....	...	.....	...	.....	...	.....	.....	.....	2,647	664 8 6
Golcondah ...	...	.....	...	.....	...	.....	...	.....	.....	.....	.....	.....
Cuddapah ...	..	.....	...	.....	...	.....	...	.....	1,653	1,187 11 3	1,038	632 0 0
Bellary	...	.....	...	.....	...	.....	...	.....	.....	.....	.....	.....
Kurnool	...	.....	...	.....	...	.....	...	.....	.....	.....	1,206	932 14 3
North Arcot ...	...	.....	...	.....	...	.....	304	1,153 2 6	306mds. 530c. ft.	51 0 0 631 5 0	403	511 8 6
South Arcot ...	...	.....	...	.....	...	.....	...	.....	.....	.....	1,318	1,038 0 2
Trichinopoly ...	...	.....	...	.....	...	.....	..	.....	.....	.....	.....	.....
Madura	219	350 15 4	161	204 6 9	...	.....	...	.....	.....	.....	4,575	6,737 12 11
Tinnevelly ...	385	221 8 4	...	.....	...	.....	...	.....	.....	.....	1,056	1,065 8 5
Anamallai ...	15,981	39,478 9 5	...	.....	8,272	24,037 5 5	...	.....	.....	.....	72	101 4 5
Bhowany ...	...	.....	...	.....	...	.....	2,688	9,000 0 0	.....	.....	120	120 0 0
Collegal	...	.....	...	.....	...	.....	4,265	15,000 0 0	.....	.....	368	528 14 6
Sigur	...	.....	...	.....	...	.....	580	2,004 0 0	.....	.....	.....	.....
Sathiamungalum	14	16 14 0	15	18 7 0	...	.....	2,997	10,000 0 0	.....	.....	70	89 3 0
Mettapoliem ...	...	.....	...	.....	..	.....	...	.....	.....	.....	.....	.....
Bolumputty ...	3,909	1,704 0 6	...	.....	379	355 8 0	...	.....	.....	.....	386	321 5 10
Mudumallai ...	31,988	41,802 1 3	...	.....	...	.....	...	.....	.....	.....	.....	.....
Salem	...	.....	...	.....	..	.....	2,224	7,502 6 0	.....	.....	9,707	8,808 4 8
South Canara .	13,377	7,889 10 7	...	.....	...	.....	...	.....	.....	.....	No. 11	330 8 0
Nelumbur ...	8,116	10,028 13 3	195	185 0 5	...	.....	...	.....	.....	.....	6,733c.ft.	2,197 15 7
Chenat Nair ...	...	.....	...	.....	...	.....	...	.....	.....	.....	.....	.....
Wynaad	9,456	11,828 7 3	...	.....	...	.....	...	.....	.....	.....	20	15 3 0
Total...	83,445	1,13,320 15 11	371	407 14 2	8,651	24,392 13 5	13,058	44,659 8 6	c. ft. 2,183 306mds.	1,870 0 3	No. 11 29,719 c. ft.	24,094 15 9

Statement showing the sale of Timber, etc., in the several forests during the official year 1873-74.—(Continued.)

Name of the Range.	Railway Fuel and Firewood.		Bamboos.		Forest produce.		Saplings.		Total amount realized.
	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	
	14	15	16	17	18	19	20	21	22
	TONS.	RS. A. P.	NO.	RS. A. P.	MDS.	RS. A. P.	NO.	RS. A. P.	RS. A. P.
Gumsur and Surada	.....	.....	.....	.....	.....	.....	.....	.....	664 8 6
Golcondah	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	.....	.....	.....	.....	.....	.....	.....	.....	1,819 11 3
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool	.....	.....	.....	.....	.....	.....	.....	.....	932 14 3
North Arcot	b. l. 204	340 14 0	.....	.....	.....	.....	.....	.....	2,687 14 0
South Arcot	tons, 6	18 6 0	.....	.....	163	141 4 0	.....	.....	1,197 10 2
Trichinopoly	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	.....	.....	.....	.....	.....	.....	.....	.....	7,293 3 0
Tinnevelly	.....	103 11 3	.....	.....	.....	69 15 6	.....	.....	1,460 11 6
Anamallai	.....	.....	.....	.....	.....	.....	.....	.....	63,617 3 3
Bhowany	997	5,989 3 0	.....	.....	.....	.....	.....	.....	15,109 3 0
Collegal	.....	.....	.....	.....	.....	.....	.....	.....	15,528 14 6
Sigur	.....	.....	.....	.....	.....	.....	.....	.....	2,004 0 0
Sathiamungalum	.....	.....	.....	.....	.....	.....	.....	.....	10,124 8 0
Mettapoliem	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bolumputty	.....	.....	.....	.....	.....	.....	.....	.....	2,380 14 4
Mudumallai	.....	.....	.....	.....	.....	.....	.....	.....	41,802 1 3
Salem	.....	.....	B. l. 1,421	8,299 5 4	138	204 1 1	.....	.....	24,814 1 1
South Canara	3½	13 0 0	20,583	532 4 0	.....	.....	.....	.....	8,765 6 7
Nelumbur	.....	.....	8,332	563 1 4	.....	.....	14,513	11,293 13 8	24,268 12 3
Chenat Nair	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wynaad	.....	.....	.....	.....	.....	4,086 8 0	.....	.....	15,930 2 3
Total...	tons 1,006½ b. l. 204	6,465 2 3	By. Lds 1,421 No. 28,915	9,394 10 8	301	4,501 12 7	14,513	11,293 13 8	2,40,401 11 2

3.—*List of the Fuel Reserves.*

Name of the Range.	Name of the Reserve.	Year in which the reserve was formed.	Area.	Charges.		Receipts.	
				During the year.	Up to the year.	During the year.	Up to the year.
			ACRES.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Gumsur and Surada ...	.....	...	.....	.....	.....	.....	.....
Vizagapatam	.....	...	.....	.....	.....	.....	.....
Cuddapah	Baulapulli No. I.	1867	1,000	144 0 0	1,492 2 0	.....	.....
	Baulapulli No. II...	1871	1,730	.....	692 4 0	.....	.....
	Sullaguntachanoo...	1871	2,000	216 0 0	1,050 10 11	.....	.....
	Codoor Hill	1874	1,500	.....	.....	.....	.....
	Yerragunta Cottah	1873	3,000	84 0 0	84 0 0	.....	.....
	Total...	...	9,230	444 0 0	3,319 0 11	.....	.....
Bellary	.....	...	.....	.....	.....	.....	.....
Kurnool	.....	...	.....	.....	.....	.....	.....
North Arcot	Mamandoor	1871	2,560	181 3 0	2,323 10 11	.....	.....
	Amboor...	1872	3,840	19 2 6	222 10 6	.....	.....
	Total...	...	6,400	200 5 6	2,546 5 5	.....	.....
South Arcot	Moota Cadoo...	1869	2,500	720 0 2	1,667 0 6	334 2 2	342 7 2
	Siroovady	1872	710	342 8 1	641 10 10	.....	.....
	Cottamangalam	1869	2,000	302 15 6	428 4 10	.....	.....
	Padepallam	1869	2,500	312 7 10	825 15 6	.....	.....
	Periamur	1869	3,840	443 13 9	863 7 4	.....	.....
	Gungavarum...	1872	8,000	.....	.....	.....	.....
	Mudenai	1869	4,000	218 6 9	438 8 11	.....	.....
	Chinnasamudram...	1869	6,400	295 8 5	1,617 13 2	6 14 0	6 14 0
	Peringalathoor	1869	4,800	38 4 8	43 8 8	.....	.....
	Total...	...	34,750	2,674 1 2	6,526 5 9	341 0 2	349 5 2

List of the Fuel Reserves.—(Continued.)

Name of the Range.	Name of the Reserve.	Year in which the reserve was formed.	Area.	Charges,		Receipts.	
				During the year.	Up to the year.	During the year.	Up to the year.
			ACRES.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Trichinopoly	Lalapettah	1871	105	739 9 1	1,611 0 3	1,066 11 9	1,066 11 9
	Tanimalei	1871	153	90 0 0	718 9 9	.....	.....
	Total...	...	258	829 9 1	2,329 10 0	1,066 11 9	1,066 11 9
Madura	Punjathanghy and Meenakarodoo.	1871-72	1,000	427 8 9	1,285 8 9	.....	.....
	Sirumallais	1872-73	.....	.....	216 5 1	.....	.....
	Allageri Covil mallai	1871-72	16 sq. mls.	.....	.....	.....	.....
	Shengadagavendon mallai	1873-74	6 sq. mls.	.....	.....	.....	.....
	Total...	...	15,080	427 8 9	1,501 13 10	.....	.....
Tinnevelly	Kaliavoor Tank	1872	665				
	Kaliavoor Block	1872	200				
	Rajancolam	1872	120				
	Mutturcolam...	1872	240				
	Kuttukalcolam	1872	130				
	Odaiarcolam	1872	1				
	Naraiginaru Tank	1873	130				
	Agilandapuram	1872	125				
	Kutticolam	1872	20				
	Parachicolam	1872	105				
	Sengalamudiarcolam	1872	45				
	Karisalcolam	1872	120				
	Manurcolam	1873	1,180	1,204 4 4	3,192 0 3	103 11 3	103 11 3
	Rustacolam	1873	20				
	Ramasamipuram	1873	20				
	Sirucolam	1873	5				
	Kalakudicolam	1873	130				
	Puducolam	1873	100				
	Seedakurichicolam	1873	55				

	Neremenicolam	1873	485									
	Mudithalai	1873	200									
	Periaperali	1873	110									
	Ondipulinaikanum	1873	105									
	Puducolam	1873	245									
	Sinnaperali	1873	40									
			4,596									
Tanjore	.....	...	.....	.....			.....			.....		
Mettapoliem	H. Reserve No. I.	1872	8 sq. mls.	290	7	8	642	9	8	.....		
	K. Reserve No. II.	1872	6 ,,	5	9	8	5	9	8	.....		
	M. Reserve No. III.	1872	5 ,,	5	8	8	1,412	2	8	.....		
	Total...	...	12,160	301	10	0	2,060	6	0	.....		
Bolumputty	Wallair	1868	1,010	753	2	8	10,976	3	10	20	0	0
Salem	A. Reserve	1866	2,560	265	5	4	2,365	4	2	27	5	4
	B. or Moroor Reserve	1866	964	243	8	1	2,049	11	0	27	5	4
	C. Reserve	1866	320	610	8	7	5,258	14	4	27	5	4
	D. Reserve	1867	1,600	75	0	0	1,480	1	7	.....		
	E. Reserve	1867	2,400	78	0	0	2,168	10	0	.....		
	Ummanary	1872	1¼ sq. mls.	72	0	0	731	8	7	.....		
	Pellapully	1873	4 ,,	210	1	10	210	1	10	.....		
	Kuriyappa Rombay	1873	3 ,,	72	8	4	72	8	4	7	0	0
	Utengherry	1874	1 ,,	239	8	0	239	8	0	.....		
	Total...	...	13,764	1,866	8	2	14,576	3	10	89	0	0
South Canara	.....	...	.....	.....			.....			.....		
Palghaut	Poolambarai	1873	1,712¼	532	6	6	532	6	6	.....		
	Grand Total...	...	98,960	9,233	8	2	47,560	8	4	1,620	7	2

4.—*List of the existing plantations.*

Name of the range.	Name of the plantation.	Year in which the plantation was formed.	Area.	Description of the trees.	Number of trees.	Cost. During the year.	Cost. Up to the year.	Receipts. During the year.	Receipts. Up to the year.
			ACRES.			RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Ganjam	Gumsur	1869-70...	3½	Tectona Grandis, etc.	280	36 0 0	165 0 4	... ...	... ...
			3½		280	36 0 0	165 0 4	... ...	... ...
Vizagapatam ...	.....	.....	.....	.....	.....	... ...	... ...	... ...	... ...
Cuddapah ...	Codoor..... ...	1865	50	Pterocarpus Santalinus, Cassia Florida, Melia Azadirachta, etc...	21,438	441 12 0	5,093 2 4	... ...	... ...
	Ooperapulli ...	1868.....	105	Albizzia Lebbek, Melia Azadirachta, Acacia Arabica, etc.	58,159	640 8 0	6,591 11 7	... ...	... ...
	Reddipulli... ...	1869.....	924	Albizzia Lebbek, Acacia Arabica, Tamarindus India, etc.	31,835	650 7 6	11,310 5 11	... ...	... ...
	Pullempett ...	1871.....	402	Albizzia Lebbek, Melia Azadirachta, Acacia Amara, Acacia Arabica, etc.	33,986	654 13 0	6,181 14 6	... ...	... ...
	Camalapoor ...	1869.....	247	Casuarina Equestifolio, Acacia Arabica, Albizzia Lebbek, etc...	75,435	283 1 0	7,927 7 6	... ...	... ...
			1,728		2,20,853	2,670 9 6	37,104 9 10	... ...	... ...
Bellary	Ghooty	1869.....	404¾	Acacia Arabica, Melia Azadirachta, Albizzia Lebbek, etc.	64,600	563 2 0	9,114 9 0	... ...	... ...
			404¾		64,600	563 2 0	9,114 9 0	... ...	... ...
Kurnool	Woncaram... ...	1869-70...	15	Mango, etc.	1,250	479 3 4	1,411 9 8	... ...	... ...
	Muttikonda ...	1866-67...	½	Teak...	132	... ...	52 12 0	... ...	... ...
			15½		1,382	479 3 4	1,464 5 8	... ...	... ...
North Arcot ...	Trivellum... ...	1868.....	435	Casuarina	1,36,498	813 0 11	10,290 6 11	353 2 0	353 2 0
	Viringipuram ...	1870.....	260	Do.	1,91,247	1,428 1 0	6,179 0 0	... ...	... ...
	Thengal	1872.....	110	Do.	3,000	86 4 0	121 2 0	... ...	... ...
	Keelminnel ...	1873.....	150	Do.	7,000	803 10 1	853 10 1	... ...	... ...
	Chaynoor... ...	1871.....	130	Acacia, Cassia, Casuarina, etc.	81,000	1,450 7 6	3,874 7 6	... ...	... ...
	Gazerlamandum.	1871.....	45	Casuarina...	44,000	435 3 0	1,621 1 10	... ...	... ...
	Vannivedu... ...	1873.....	30	Do.	5,000	151 15 8	151 15 8	16 0 0	16 0 0
	Ammoordy... ...	1873.....	160	Do.	.....	237 10 2	237 10 2	... ...	... ...
	Ammerdy... ...	1867.....	25	Indigenous and Exotic trees	11,000	162 0 0	2,617 11 9	... ...	... ...
			[redacted]		4,78,745	5,568 4 4	25,947 1 11	369 2 0	369 2 0
South Arcot ...	Trinomally... ...	1871...	[redacted]	Kátvalai, Illupey, etc.	260	10 3 6	42 4 0	... ...	... ...
	Chengum	1871.....	[redacted]	Satin, Sandal, Casuarina, etc....	3,240	82 13 3	345 10 1	... ...	... ...
	Chengum... ...	1872.....	13	Casuarina, Purasu, and Valum	600	52 7 6	72 1 6	... ...	... ...
			17		4,100	145 8 3	459 15 7	... ...	... ...

Trichinopoly ...	Elamanore ...	1871.....	72	Casuarina, Inga Dulcio, Acacias Arabica and Amara, Cassia Florida, etc.	1,50,250	1,654 2 4	5,834 14 8	159 1 1	435 13 0
	Kulitalei	1871.....	48	Casuarina, Inga, Dulcio, Acacias Arabica and Lencophylaca, etc.	77,100	1,456 7 9	2,928 12 10	26 4 0	149 10 0
	Chithalivai ...	1871.....	107	Acacias Arabica and Lencophylaca, Albizzia Lebbek, Inga Dulcia, etc.	86,242	1,338 13 2	1,781 4 3	202 11 9	202 11 9
	Chickonum ...	1874.....	122	.....	.....	.....	.....	532 9 3	532 9 3
	Kutlei	1871.....	73	Acacias Arabica and Lencophylaca, Albizzia Lebbek, Cassia Florida, etc.	11,601	883 12 9	1,742 9 11	31 0 0	31 0 0
			422		3,25,193	5,333 4 0	12,287 9 8	951 10 1	1,351 12 0
Madura	Vunnathiparai...	1869-70...	5½	Teak...	4,315	186 5 10	1,202 2 11	.....	.....
	Kodikannel ...	1870-71...	10·3	Eucalyptus and Acacia...	7,975	461 14 3	2,023 3 5	.....	.....
	Palani	1870-71...	2$\frac{33}{64}$	Teak...	2,112	137 14 4	531 5 9	.....	.....
	Sathungoody ...	1873-74...	32·4	Babool, etc.	.....	189 5 5	189 5 5	.....	.....
			50		14,402	975 7 10	3,946 1 6	.....	.....
Tinnevelly... ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Annamallai ...	Moodi	1870.....	8	Teak...	8,439	788 10 0	1,598 9 11	.....	.....
	Toonacadavoo...	1873.....	8	Teak...	3,680	866 12 0	999 12 0	.....	.....
			16		12,019	1,655 6 0	2,598 5 11	.....	.....
Sathiamangalum.	Tullamallay ...	1863.....	65	Sandalwood	61,800	1,633 1 9	10,796 14 7	.....	.....
	Do. ...	1873.....		Anatti	2,600				
			65		64,400	1,633 1 9	10,796 14 7	.....	.....
Collegall	Bylore	1870.....	56	Sandalwood	38,000	2,975 7 3	11,509 0 6	.....	.....
			56		38,000	2,975 7 3	11,509 0 6	.....	.....
Bhowany	Bhowany	1871.....	Sq. yds. 64	Firewood...	.....	233 10 0	608 5 10	.....	.....
			64		.....	233 10 0	608 5 10	.....	.....
Bolumputty ...	Mettapolliem ...	.....	Acres.	.....	.....	.....	.....	.....	.....
Seegur	Seegur	1873.....	14	Sandalwood	14,000	1,386 4 10	3,467 8 11	.....	.....
			14		14,000	1,386 4 10	3,467 8 11	.....	.....
Mudumallai ...	Mudumallai ...	1863.....	20	Teak	20,000	2,404 13 7	17,928 14 6	.....	.....
	Benni	1869.....	50		50,000				
			70		70,000	2,404 13 7	17,928 14 6	.....	.....
Salem	Putchoor	1870.....	9	Babool and Neem	.....	55 5 9	433 14 2	.....	.....
	Shevaroy Hills..	1867.....	3 or 4	Teak and Soolu	685	173 4 7	3,235 1 8	.....	.....

List of the existing Plantations.—(Continued.)

Name of the range.	Name of the plantation.	Year in which the plantation was formed.	Area.	Description of the trees.	Number of trees.	Cost.		Receipts.	
						During the year.	Up to the year.	During the year.	Up to the year.
			ACRES.			RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Salem	Denkencotta ...	1873.....	.....	Sandalwood	153	47 14 10	59 12 10	.....	.....
	Kanaganava Sundram ...	1873.....	3	Do.	2,385	256 9 6	256 9 6	.....	.....
	Yalaigherry ...	1873.....	3	Do.	.....	.....	.....	.....	.....
			18		3,223	533 2 8	3,985 6 2	.....	.....
South Canara ...	Parapah	1864-65...	75	Teak...	64,300	698 12 0	6,421 3 8	.....	.....
			75		64,300	698 12 0	6,421 3 8	.....	.....
Nelumbur	Nelumbur... ...	.....	2,990	Teak and Blackwood	.....	21,954 0 0	2,00,118 0 0	11,280 0 0	94,250 0 0
			2,990		.....	21,954 0 0	2,00,118 0 0	11,280 0 0	94,250 0 0
Palghaut... ...	Nochipully ...	1870.....	167¾	Teak, Tamarind, Mangoe, etc.	20,500	240 0 5	2,209 2 4	.....	.....
	Pulliampully ...	1871.....	13¼	Do. do. do. etc.	26,000	246 2 8	1,638 1 8	.....	.....
			181		46,500	486 3 1	3,847 4 0	.....	.....
Wynaad	Wynaad	.....	.....	.....	.....	.....	.....	.....	.....
		Acres...	7,471						
		Sq. yds...	64	Grand Total...	*14,21,997	49,731 13 2	3,51,770 5 7	12,600 12 1	95,970 14 0

* Exclusive of Bhowany and Nelambur

5.—*Statement showing Timber, etc., disposed of under License and Voucher System in the several Forests for the official year* 1873-74.

Ranges.	Teakwood.		Ebony or Black-wood.		Rosewood.		Other Junglewood used as Timber.		Firewood and Railway Fuel	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
	C. FT.	RS. A. P.	C. FT.	RS. A. P.	C. FT.	RS. A. P.	C. FT.	RS. A. P.	TONS.	RS. A. P.
Gumsur and Suradah	...	.....	...	.....	...	.....	36,560	2,094 8 0	313	109 8 6
Golcondah	...	.....	...	.....	...	.....	1,920	230 12 0	...	.....
Cuddapah...	...	.....	...	.....	...	.....	80,180	9,490 0 0	17,757	39,776 7 2
Bellary	...	.....	...	.....	...	.....	...	.....	...	.....
Kurnool	...	.....	...	.....	...	.....	2,02,270	23,913 0 0	55	96 13 6
North Arcot	...	.....	...	.....	...	.....	69,980	3,726 14 0	2,114	3,563 11 6
South Arcot	...	.....	...	.....	...	.....	31,499	1,710 7 0	77	138 10 0
Trichinopoly	...	.....	...	.....	...	.....	...	.....	...	392 7 4
Madura	...	.....	...	.....	...	.....	41,635	2,867 0 4	3,325	5,315 9 2
Tinnevelly	...	.....	...	.....	...	.....	54,968	3,589 14 3 525 13 3	2,549	3,948 2 8
Anamallay	...	.....	...	.....	...	.....	192	25 0 0	346	769 9 9
Bhowany	2,660	665 0 0	20	5 0 0	...	.....	11,580	1,613 0 0	134	197 11 0
Collegal	480	120 0 0	...	.....	...	.....	3,920	588 0 0	...	.....
Sathiamangalum	1,700	425 0 0	180	45 0 0	...	.....	23,143	3,475 8 0	...	.....
Mettapoliem	240	60 0 0	...	.....	80	20 0 0	2,560	466 0 0	55	49 14 4
Bolumputty	..	.....	...	.....	...	.....	3,700	409 0 0	1,076	1,195 4 6
Mudumallay	...	.....	...	.....	...	.....	10	1 0 0	...	.....
Seegur	...	.....	...	.....	...	.....	...	.....	...	.....
Salem	...	.....	...	.....	...	.....	34,744	3,473 11 0	8,112	14,094 8 11
South Canara	...	.....	...	.....	...	.....	3,820	1,318 12 10	229	5,050 1 3
Wynaad	...	.....	...	.....	...	.....	...	.....	...	.....
Nelambur	...	.....	...	.....	...	.....	...	.....	...	.....
Chenat Nair	...	.....	...	.....	...	.....	...	.....	...	.....
Total...	5,080	1,270 0 0	200	50 0 0	80	20 0 0	6,02,681	59,518 4 8	36,142	74,698 7 7

5.—*Statement showing Timber, etc., disposed of under License and Voucher System in the several Forests for the official year* 1873-74.—(Concluded.)

Range.	Charcoal.		Bamboos.		Forest produce.		Palmirah.		Total.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	12	13	14	15	16	17	18	19	20
	TONS.	RS. A. P.	B. L.	RS. A. P.	MDS.	RS. A. P.	TREES.	RS. A. P.	RS. A. P.
Gumsur and Suradah	...	.....	...	.....	...	.....	...	.....	2,204 0 6
Golcondah	...	.....	301	94 1 0	...	.....	...	.....	324 13 0
Cuddapah	44	99 14 0	1,183	607 12 0	5,280	260 0 0	14	27 8 0	50,261 9 2
Bellary	...	.....	...	.....	...	.....	...	.....	.....
Kurnool	1,584	2,224 3 11	9,061	3,216 15 6	600	45 0 0	...	.....	29,496 0 11
North Arcot	458	1,027 4 0	9,667	4,833 8 0	...	515 12 6	...	.....	13,857 2 0
					190	190 0 0			
South Arcot	25	69 10 0	1,673	1,317 11 6	33,120	643 12 0	..	.....	3,880 2 6
Trichinopoly	...	.....	...	.....	...	.....	...	.....	392 7 4
Madura	175	492 6 0	1,089	2,528 9 6	28	1 5 0	...	.....	11,204 14 0
Tinnevelly	1,405	2,429 8 0	165	135 7 2	...	6,860 1 9	...	.....	17,488 15 1
					No.				
Anamallay	16	113 14 0	3,993	2,911 3 5	1,200	12 0 0	...	.....	3,831 11 2
Bhowany	...	.....	1,124	791 4 0	120	15 0 0	...	.....	3,286 15 0
Collegal	...	.....	...	.....	...	.....	...	.....	708 0 0
Sathiamungalum	...	.....	...	.....	640	40 0 0	...	.....	3,985 8 0
Mettapoliem	1	3 0 0	161	161 0 0	1,000	25 0 0	...	.....	784 14 4
Bolumputty	42	52 14 0	756	567 0 0	480	12 15 2	...	.....	2,237 1 8
Mudumallay	...	.....	...	.....	...	.....	...	.....	1 0 0
Seegur	...	.....	...	.....	480	60 0 0	...	.....	60 0 0
Salem	1,178	2,639 3 0	11,055	8,793 2 11	14,940	480 5 0	...	.....	29,480 14 10
			No.						
South Canara	10	50 0 0	1,93,700	2,905 8 0	1,993	31 4 0	...	.....	9,355 10 1
Wynaad	...	.....	...	.....	...	68 4 0	...	.....	68 4 0
Nelambur	...	.....	...	.....	...	.....	...	.....	.....
Chenat Nair	...	.....	...	.....	...	.....	...	.....	.....
Total...	4,938	9,201 12 11	40,228	28,863 3 0	58,871	9,260 11 5	14	27 8 0	1,82,909 15 7
			No. 1,93,700						

6. *Yield of Forests.*

Ranges.	Timber.				Firewood for Railway and other purposes.		Bamboos.		Charcoal on License.	Forest produce Departmentally and on License.	Palmyras on License.
	Departmentally.		On License.	Free.	On License and Departmentally.	Free.	On License and Departmentally.	Free.			
	C. FT.	MAUNDS.	C. FT.	C. FT.	TONS.	TONS.	CART-LOADS.	CART-LOADS.	TONS.	MAUNDS.	TREES.
Gumsur and Suradah...	2,527	...	36,560	2,39,780	313	61,532	...	...	...	...	...
Golcondah	...	...	1,920	...	...	...	301	...	...	...	...
Cuddapah	972	77,440	80,180	27,200	17,757	734	1,183	160	44	5,280	14
Bellary	...	...	...	...	...	...	...	...	...	...	...
Kurnool	855	...	2,02,270	29,020	55	16,674	9,061	99	1,584	600	...
North Arcot	9,831	19,205	69,980	11,400	2,114	5,134	9,667	268	458	190	...
South Arcot	2,010	...	31,499	1,810	77	97	1,673	23	25	33,137	...
Trichinopoly	...	...	...	...	470	...	...	...	...	...	...
Madura	6,417	...	41,637	42,468	3,325	2,095	1,089	632	175	28	...
Tinnevelly	317	...	54,968	1,201	2,549	...	165	...	1,405	...	...
Annamallai	25,570	...	192	2,368	346	28	3,993	467	16	No. 1,200	...
Bhowany	120	2,710	14,260	3,960	1,414	6	1,124	69	...	120	...
Collegal	...	4,159	4,400	1,120	...	80	...	200	...	...	...
Sattiamungalum... ...	14	4,360	25,023	200	...	...	..	...	...	640	...
Mettapolliem	...	...	2,880	540	88	3	161	36	1	1,000	...
Bolumputty	...	...	3,700	...	1,076	35	756	86	42	480	...
Mudumallai	4,382	...	10	...	...	...	...	...	...	...	...
Seegur	500	994	...	...	...	...	...	...	...	480	...
Salem...	10,353	1,793	34,744	52,480	8,112	4	12,498	1,573	1,178	15,220	...
							No.				
South Canara	...	...	3,820	...	229	...	1,94,100	...	10	1,993	...
Wynaad	9,997	...	...	logs 2,385	...	...	...	1,537	...	...	...
Nelambur	38,352	...	...	...	...	...	...	...	...	...	...
Chenat Nair	4,416	...	...	...	...	...	...	...	...	...	...
Total...	1,16,633	1,10,661	6,08,041	4,13,547 logs 2,385	37,925	86,422	41,671 No. 1,94,100	5,150	4,938	Ms. 59,168 No. 1,200	14

7.—*Detailed Statement of Receipts and Charges under A, "Conservancy and Working"*

Budget Classified Items.	Central Office.	Gumsur and Suradah.	Golcondah.	Cuddapah.	Bellary.	Kurnool.
1	2	3	4	5	6	7
Receipts.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Sale of timber brought to Depôt by Government Agency.	...	152	...	1,831	...	933
II. Sale of Timber, Firewood, Bamboos, Charcoal removed from Forests by purchasers including seignorage	...	2,204	325	50,307	...	29,496
III. Duty on Foreign timber.....	...	...	...	...	...	...
IV. Permit fees and rent of Jungles and Privileges	...	...	...	...	...	...
V. Grazing dues.....	...	...	...	...	...	...
VI. Sale of fruits, Babool pods and other minor forest produce	...	...	...	68	...	...
VII. Sale of confiscated drift and waif timber	...	7	...	407	...	1,280
VIII. Fines and forfeitures	...	...	...	...	...	..
IX. Miscellaneous receipts	771	...	...	44	...	195
Value of timber supplied to Department Public Works and other Public Departments	...	513	...	...	...	...
Total Receipts...	771	2,876	325	52,657	...	31,854
Expenditure.						
I. Timber expenses for felling, cutting, clearing, sawing, and the transport of timber by land or water to depôts, also charges for storing, securing, watching, piling arrangement for selling timber	...	273	...	6,424	...	525
II. Purchase of Elephants, Cattle, Dead Stock, Tools, and Plans.....	...	...	...	...	...	...
III. Feed and keep of Elephants and Cattle	...	133	...	...	...	...
IV. Rent of leased forests and seignorage paid for timber felled in leased Forests, shares of villagers and others in the Revenue of Forests	...	...	...	...	..	1,500
V. Charges connected with the collection for revenue on grass, fruits and Miscellaneous Forest produce	...	...	...	...	...	...
VI. Plantations.....	...	36	...	2,670	303	476
(a.) Reserved tract Railway Fuel	...	...	...	2,818	...	...
VII. Forest work, viz., cutting of creepers protection of forests or trees against fire and other work for the conservancy and improvement of the Forests, charges for selecting, making and girdling of trees to be felled.....	...	22	...	...	...	...
VIII. Forest Survey, Topographical and Valuation Survey to ascertain the contents of Forests and annual rate of timber production	...	...	..	...	...	...
IX. Experiments to test the value of timber of different kinds.	...	...	...	..	...	...
X. Communications, buildings and minor works, fences, boundary pillars and posts and boundary paths, etc. ...	...	...	...	...	...	97 62
Total of Conservancy and Working...	...	464	...	11,912	303	2,660
B. *Establishment.*						
I. Salaries—						
1. Pay of the Inspector of Forests	14,600	...	...	...	...	...
2. Do. of the Executive Officers	...	...	...	3,900	...	...
Military pay of do.	...	...	...	...	...	...
Supernumeraries.....	...	...	...	...	...	...
Pay of Probationary Forest Assistants	...	...	...	...	...	1,800
Do. of Forester in charge	...	1,200	...	...	...	...
3. Office Establishment—						
(a.) Direction	4,209	...	...	...	...	...
Uncovenanted Assistant.....	3,600	...	...	...	...	...
(b) Executive.....	...	408	...	300	...	679
4. Forest Conservancy Establishment	...	576	438	3,288	336	1,234
5. Timber depôt and work establishment	...	...	...	...	...	1,962
6. Deputation and Special allowances	438	...	...	...	...	877
7. Dresser's pay and batta	...	...	...	...	...	...
II. Travelling allowances including Travelling expenses and Tentage—						
1. Inspector of Forests	3,423	...	...	...	...	...
2. Executive Officers	...	360	...	1,800	...	1,451
3. Subordinate Establishment	190	16	50	180	...	192
III. Contingencies	2,365	14	..	107	...	211
Total of Establishment and Contingencies...	28,825	2,574	488	8,675	336	8,406
Total of Expenditure...	28,825	3,038	488	20,587	639	11,966

B " *Establishment and Contingencies of the Forest Department for the Official year* 1873-74."

North Arcot.	South Arcot.	Trichinopoly.	Madura.	Tinnevelly.	Coimbatore.						Mudumallai.	Seegur.
					Annamallai.	Bhowany.	Collegal.	Sathiamangalum.	Mettapolium.	Bolumputty.		
8	9	10	11	12	13	14	15	16	17	18	19	20
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
2,157	1,131	...	6,536	1,287	873	15,109	15,000	10,111	...	2,339	28,249	2,004
13,373	3,236	392	11,205	10,206	3,832	3,287	708	3,986	785	2,237	1	60
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	3	...	...	...	150	1,321	1,746	1,575	...	...	180
...	...	26	...	...	...	...	...	12	...			
										...	...	...
570	644	708	...	6,930	13	...	...	...	...	20	...	...
284	130	...	119	526	44	63	3	14	49	1	...	...
...	10	3	...	12	...	...	...	...	...	1	5	...
6	392	95	360	17	319	...	20	...	...	...	15	...
509	66	...	757	...	62,744	...	529	35	...	...	13,553	...
16,899	5,609	1,227	18,977	18,978	67,825	18,609	17,581	15,904	2,409	4,598	41,823	2,194
2,135	713	276	7,215	578	8,752	10,605	3,550	2,895	416	284	12,407	944
...	35	121	12	346	...	225	205	5	1	15	14	...
...	...	...	...	...	6,474	1,559	300	505	...	...	2,824	50
...	...	...	...	...	...	...	...	...	...	...	3,571	...
...	5	...	43	171	184	...	...	...	...	138	...	...
5,559	2,545	6,353	2,653	1,204	1,676	234	2,550	1,455	11	739	2,692	1,497
241	...	...	...	...	...	...	...	...	100	...	...	...
...	20	...	924	3	1,298	...	...	..	...	264	...	...
...	...	...	...	...	1,169	...	...	...	...	...	...	...
...	30	...	...	...	...	...	...	...	3	18	...	...
27	275	19	173	501	4,046	2,777	495	140	193	259	792	9
7,962	3,623	6,769	11,020	2,803	23,599	15,400	7,100	5,000	724	1,717	22,300	2,500
...	...	...	...	..	...	...	...	...	...	...	...	...
3,000	3,000	...	3,157	2,875	4,200	...	...	...	...	...	4,800	...
...	...	...	...	...	...	...	...	...	...	...	7,691	...
...	...	...	...	...	150	...	...	...	2,650	...	...	...
...	...	1,724	...	...	...	...	...	...	..	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	...	...	...	...	...	...	...	..	...	...	...
588	288	...	468	560	665	...	...	131	...	...	1,175	...
3,815	1,100	...	2,726	4,052	3,685	2,589	1,974	1,476	1,437	946	1,620	240
...	...	...	...	...	189	...	...	...	...	...	492	...
...	...	180	...	180	..	...	...	...	...	...	...	...
...	...	...	...	...	327	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
1,800	1,800	1,230	1,725	1,664	2,036	...	...	...	1,621	...	1,080	...
361	131	...	494	558	765	816	360	266	189	...	120	48
654	32	134	1,088	361	262	21	50	55	54	46	151	17
10,218	6,351	3,268	9,658	10,250	12,282	3,426	2,384	1,928	5,951	992	17,129	306
18,180	9,974	10,037	20,678	13,053	35,881	18,826	9,484	6,928	6,675	2,709	39,429	2,806

7.—*Detailed Statement of Receipts and Charges under etc.*,—(Concluded.)

Budget Classified Items.	Salem.	South Canara.	Malabar.			Grand Total.
			Wynaad.	Malabar.	Chenat Nair.	
	21	22	23	24	25	26
Receipts	RS.	RS.	RS.	RS.	RS.	RS.
I. Sale of timber brought to depôt by Government Agency.	15,646	7,487	7,943	16,370	...	1,35,158
II. Do. of timber, Firewood, Bamboos, Charcoal removed from Forest by purchasers including seignorage	37,717	9,355	68	...	...	1,82,780
III. Duty on Foreign Timber	...	.	...	...	...	...
IV. Permit fees and rent of Jungles and Priviliges	4,123	2,398	...	...	...	11,446
V. Grazing dues	...	...	...	...	...	38
VI. Sale of fruits, Babool pods and other minor Forest produce	6,360	43	4,088	...	...	19,444
VII. Sale of confiscated drift and waif timber	460	161	10	...	832	4,340
VIII. Fines and forfeitures	...	1	...	...	...	32
IX. Miscellaneous Receipts	180	190	1,041	137	...	3,782
Value of timber supplied to Department Public Works and other Public Department	734	1,279	3,917	7,885	...	92,521
Total Receipts...	65,220	20,914	17,067	24,392	832	4,49,541
Expenditure.						
I. Timber expenses for felling, cutting, clearing sawing, and the transport of timber by land or water to depôts, also charges for storing, securing, watching, piling arrangements for selling timber	13,853	3,297	3,279	4,427	265	83,113
II. Purchase of Elephants, Cattle, Dead Stock, Tools and Plant	...	52	...	537	4	1,572
III. Feed and Keep of Elephants and Cattle	...	1,718	159	103	...	13,625
IV. Rent of leased Forests and seignorage paid for timber felled in leased Forests, shares of Villagers and others in the Revenue of Forests	...	...	...	2,479	...	7,550
V. Charges connected with the collection of revenue on grass, fruits and Miscellaneous Forest produce	296	48	5	...	...	890
VI. Plantations	1,106	1,201	10	11,435	536	47,001
(a.) Reserved tract Railway Fuel	1,404	...	...	...	...	4,623
VII. Forest work, viz., cutting of creepers protection of forests or trees against fire and other work for the Conservancy and improvement of the Forests, charges for selecting, marking and girdling of trees to be felled	...	213	...	...	465	3,209
VIII. Forest Survey, Topographical and Valuation Survey to ascertain the contents of Forests and annual rate of timber production	27	...	84	11	146	1,436
IX. Experiments to test the value of timber of different kinds.	...	...	...	6	...	57
X. Communications, buildings and minor works, fences, boundary pillars and posts and boundary paths, etc.	772	211	163	1,002	80	12,093
Total of Conservancy and Working...	17,578	6,740	3,700	20,000	1,496	1,75,370
B. Establishment.						
I. Salaries—						
1. Pay of the Inspector of Forests	...	...	...	...	...	14,600
2. Do. of the Executive Officers	1,619	4,200	3,000	3,600	...	36,451
Military pay of do.	...	...	...	...	...	7,691
Supernumeraries	...	...	...	...	...	2,800
Pay of Probationary Forest Assistants	...	...	...	1,800	...	5,324
Do. of Forester in charge	...	...	...	...	...	1,200
3. Office Establishment—						
(a.) Direction	...	...	...	...	...	4,209
Uncovenanted Assistant	...	...	...	...	...	3,600
(b.) Executive	1,145	372	990	744	144	8,657
4. Forest Conservancy Establishment	6,006	3,578	1,264	2,285	811	45,476
5. Timber depôt and work establishment	...	...	...	830	...	3,573
6. Deputation and Special allowances	1,080	...	...	...	...	2,755
7. Dresser's pay and batta	...	...	...	...	...	327
II. Travelling allowances including Travelling expenses and Tentage—						
1 Inspector of Forests	...	...	...	...	...	3,423
2. Executive Officers	2,202	1,800	1,800	2,423	...	24,792
3. Subordinate Establishment	859	573	80	5	360	6,611
III. Contingencies	247	108	158	114	46	6 325
Total Establishment and Contingencies..	13,158	10,631	7,292	11,931	1,361	1 77,814
Total of Expenditure...	30,736	17,371	10,992	31,931	2,857	3.53,184

8.—*Statement showing the particulars of Stock in hand at the commencement and close of the official year* 1873-74.

Ranges.	Teakwood.		Ebony or Black-wood.		Rosewood.		Sandalwood.		Red saunder roots or posts.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
	C. FT.	RS. A. P.	C. FT.	RS. A. P.	C. FT.	RS. A. P.	MDS.	RS. A. P.	C. FT. MDS.	RS. A. P.
Gumsur and Suradah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Golcondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	.....	.....	.....	.....	.....	.....	.....	.....	mds. 19,328 cubic ft. 1,453	2,296 6 8 981 12 0
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Arcot	.....	.....	.....	.....	.....	.....	.....	.....	mds 3,136 cubic ft. 530	682 12 0 530 0 0
South Arcot	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trichinopoly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	382	407 3 7	598	637 4 6	.....	.....	.....	.....	.....	.....
Tinnevelly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Anamallay	75,859	1,39,756 1 6	.....	.....	17,928	22,042 0 0	.....	.....	.....	.....
Bhowany	.....	.....	.....	.....	.....	.....	1,256	2,197 14 0	.....	.....
Collegal...	86	53 12 0	140	82 4 0	.....	.....	1,347	2,021 4 3	.....	.....
Metrupoliem...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sathiamungalum	37	18 10 0	188	94 2 0	.....	.....	7	10 14 0	.....	.....
Bolumputty	4,677	1,942 5 0	.....	.....	1,552	1,328 12 11	.....	.....	.....	.....
Mudumallay	1,06,828	1,05,693 9 4	.....	.....	.....	.....	.....	.....	.....	.....
Sigur	2,433	1,521 0 0	396	297 4 6	.....	.....	.....	.....	.....	.....
Salem	.....	.....	.....	.....	.....	.....	1,559	4,996 15 0	.....	.....
South Canara	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wynaad	21,155	19,514 7 1	.....	.....	.....	.....	.....	.....	.....	.....
Nelambur	9,737	7,302 12 0	.....	.....	.....	.....	.....	.....	.....	.....
Chenat Nair	.....	.....	.....	.....	698	1,168 12 0	.....	.....	.....	.....
Total...	2,21,194	2,76,209 12 6	1,322	1,110 15 0	20,178	24,539 8 11	4,169	9,226 15 8	mds. 22,464 cubic ft. 1,983	4,490 14 8

8.—*Statement showing the particulars of Stock in hand at the commencement and close of the official year* 1873-74.—(Continued.)

Ranges.	Other Junglewood used as Timber.		Bamboos.		Railway Fuel.		Forest produce.		Saplings.		Total.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	12	13	14	15	16	17	18	19	20	21	22
	C FT.	RS. A. P.	NO.	RS. A. P.	TONS.	RS. A. P.	MDS.	RS. A. P.	NO.	RS. A. P.	RS. A. P.
Gumsur and Suradah	3,825	810 8 0	.....	.....	.....	.....	.....	.....	.....	.....	810 8 0
Golcondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	1,038	986 13 7	.....	.....	.....	.....	.....	.....	.....	.....	4,264 15 10
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool	483	486 4 0	.....	.....	.....	.....	.....	.....	.....	.....	486 4 0
North Arcot	257	172 0 0	.....	.....	.....	.....	.....	.....	.....	.....	1,384 12 0
South Arcot	1,002	740 4 5 331 9 11	.....	.....	6	36 14 0	147	119 10 3	.....	.....	1,228 6 7
Trichinopoly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	13,912	14,814 6 8	.....	.....	.....	.....	.....	.....	.....	.....	15,858 14 9
Tinnevelly	8,923	12,676 0 5	.....	.....	.....	.....	.....	.....	.....	.....	12,676 0 5
Anamallay	831	463 0 0	.....	.....	.....	.....	.....	.....	.....	.....	1,62,261 1 6
Bhowany	.....	.....	.....	.....	1,402	4,206 12 0	.....	.....	.....	.....	6,404 10 0
Collegal	1,847	923 9 0	.....	.....	.....	.....	.....	.....	.....	.....	3,080 13 3
Metapolliem	.....	.....	.....	.....	100	300 0 0	.....	.....	.....	.....	300 0 0
Sathiamungalum	717	358 10 0	.....	.....	.....	.....	.....	.....	.....	.....	482 4 0
Bolumputty	2,837	1,327 12 4	.....	.....	.....	.....	.....	.....	.....	.....	4,598 14 3
Mudumallay	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,05,693 9 4
Sigur	4,193	1,717 9 11	.....	.....	.....	.....	.....	.....	.....	.....	3,535 14 5
Salem	3,078	2,280 4 9	.....	.....	.....	.....	.....	.....	.....	.....	7,277 3 9
South Canara	56,926	31,117 3 6 8 13 6	24,300	1,004 9 4	.....	.....	.....	.....	.....	.....	32,130 10 4
Wynaad	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19 514 7 1
Nelumbur	7,033	1,772 0 9	.....	.....	.....	.....	.....	.....	8,724	5,952 8 0	15,027 4 9
Chenat Nair	552	182 8 0	.....	.....	.....	.....	.....	.....	.....	.....	1,351 4 0
Total	1,07,454	71,169 6 9	24,300	1,004 9 4	1,508	4,543 10 0	147	119 10 3	.....	5,952 8 0	3,98,367 14 3

Add increase in the valuation of timber	26,367 1 9
Add valuation of timber felled as per Statement No. I.	1,47,689 0 0
Total Stock	5,72,424 0 0
Deduct total valuation of timber, etc., sold during the year	1,87,522 0 0
Wastage	10,638 0 0
Balance of stock at the close of the year 1873-74	3,74,264 0 0

No. 2.

OFFICE OF INSPECTOR OF FORESTS,
OOTACAMUND, *2nd April* 1874.

From

CAPTAIN C. WALKER,
Officiating Inspector of Forests,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honor to submit the Inspection Report for the official year 1873-74.

Colonel Beddome visited the Annamallay Range in June and proceeded thence to Madura and Tinnevelly returning to his headquarters at the end of July. In September he visited Coimbatore and Madras, and in October and November inspected Wynaad and South Canara.

From the 15th November to the 14th December he was in the North Canara Forests and at Bombay visiting the dockyards, *etc.*, in accordance with G.O., No. 1,087, of the 10th October 1873. In the latter part of December he visited the Ghooty and Cuddapah Plantations. On the 16th January 1874 he proceeded to Coimbatore and Madras, and handed over charge on his departure on furlough for two years on the 2nd February 1874.

From the 3rd to the 6th February I was at Coimbatore and proceeded thence to Salem and Madras, where I arrived on the 10th and remained till the 26th consulting with the Board and making myself acquainted with the general arrangements. I then proceeded on a tour in the South Arcot District, and subsequently visited Trichinopoly and Coimbatore, returning to headquarters on the 19th March.

It will thus be seen that out of twenty-three forest ranges, comprising fifteen Revenue districts, ten were visited. Those not visited were Gumsur and Surada, Golcondah, Kurnool, North Arcot, Bhowany, Collegal, Sattiamungalam, Muddumallai, Sigur, Mettapolliem, Bolamputty, and Sholakarray, Nellumbur and Chenat Nair (Palghaut).

The Inspection Reports submitted after each tour deal so fully with the state of forest matters in each district that it seems unnecessary to recapitulate them here, especially as the Board propose to draw up the General Administration Report in consultation with the Inspector.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) C. WALKER, Captain,
Officiating Inspector of Forests.

No. 1,945.

CHETTERPORE,
26th September 1874.

From

R. DAVIDSON, ESQ.,
Acting Collector and Conservator of Forests, Ganjam.

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honor to submit my report on the administration of the Gumsur and Surada Forests in this district for the official year 1873-74, accompanied by a copy of the Forest Overseer's report, and the prescribed Statements noted in the margin.

1. A. Detailed Statement of receipts and charges under "A, Conservancy and Working," and "B, Establishment and Contingencies."
2. B. Statement showing the quantity of timber felled departmentally.
3. C. Do. do. sale of timber.
4. D. Do. do. particulars of stock in hand at the commencement and close of the official year.
5. E. Do. do. timber, &c., disposed of under License and Voucher system.
6. Statement of Fuel Reserves.
7. Do. of Experimental Teak Plantation.
8. A. Monthly detailed Register of Receipts.
9. B. Do. do. of Expenditure on conservancy and working.
10. C. Do. do. of do. on Establishments.
11. D. Do. do. of sums drawn from Treasury for Forest charges.
12. E. Do. do. of timber felled and sent into Store, with 8 original vouchers for value of timber supplied to Department Public Works.

SECTION I.

(*a.*) *Inspection Tours of Collectors.*—My predecessor does not appear to have had either time or opportunities to inspect the forests during the year under report, and as I took charge of the district just before the close of the year, *i.e.*, on the 2nd March 1874, I had no time to inspect them, but I hope to be able to do so during my next Jamabundy tour.

(*b.*) *Inspection Tours of Range Officers.*—The various forests have been duly visited by the Overseer with the exception of those situated on the frontiers. The state of the Overseer's health prevented his visiting them.

SECTION II.

RESERVES.

A. Reserved Forests.—The area of the reserved portion of the forests will be communicated to the Board immediately on the receipt of certain information called for from the Forest Overseer.

The Statements B and C show in detail the quantity and value of timber felled and sold by Departmental Agency during the year under report. The sub-joined is an abstract thereof—

Description of Timber.	Timber Felled.		Timber Sold.		Remarks.
	Quantity.	Value.	Quantity.	Amount actually realized.	
	C. FT.	RS	C. FT.	RS.	
Saul	1,712	428	2,264	566	
Sissua	23	10	7	3	
Pia Saul	234	58	156	39	
Holondho	463	116	162	40	
Bheru	17	7	9	4	
Gombari	78	19	50	13	
Total ...	2,527	638	2,648	665	

It will be found from the above that the value of timber felled during the year under report was Rupees 368 against Rupees 580 in the preceding year, and that the amount actually realized by the sale of timber was Rupees 665 against Rupees 666 in the preceding year. These trifling variations call for no remark.

The amount of working charges during the year under report was Rupees 464 against Rupees 548 of the preceding year. The net working charges, after deducting the pay of a gardener employed in the experimental plantation, were Rupees 428, which sum being deducted from the amount realized by the sale of timber by the Departmental Agency during the year, viz., Rupees 665, leaves a net receipt balance of Rupees 237.

B. Fuel Reserves.—There are no fuel reserves in this district, and the statement called for in paragraph 18 of the Board's Proceedings, Forest No. 4, dated the 27th January last, is therefore sent blank.

C. Plantations.—The only plantation in this district is the experimental teak plantation containing an area of 3½ acres. This was originally formed at the close of the year 1869, and it now contains the following trees :—

No. of Trees.	
160	Tectona grandis, Teak.
7	Acacia Arabica.
2	Poinciana Regia.
10	Sapindus emarginatus.
8	Sumach.
3	Inga dulcis.
31	Mangifera Indica.
33	Acacia Ashoka.
15	Artocarpus integrifolia.
1	Cordia Myxa.
10	Bignonia suberosa.
280	Trees.

The four teak trees originally planted are now 20 to 40 feet in height, by 9 to 12 inches girth at the bottom. The soil is said to be well adapted for teak and mango trees. During the hot season want of water is much felt, the gardener has to bring it from a distance of about a mile, as the little pit dug in the plantation is then quite dry. At the recommendation of the Overseer I have provided Rupees 100 in the Budget-Estimate for 1875-76 for sinking a well there.

The total cost of this plantation up to the close of the official year under notice was Rupees 165 ; there were no receipts therefrom, as will appear from the accompanying Statement prepared in reference to paragraph 21 of the Board's Proceedings, Forest No. 4.

SECTION III.

Forests worked under the License and Voucher system.

The Collections under this head are shown below :—

Description of Timber.	Quantity.	Amount realized.
		Rs.
Saul in Cubic Feet	20,240	1,519
Sissua in ,, ,, ...	40	3
Pia Saul in Cubic Feet	1,700	90
Sohon in ,, ,, ...	420	21
Sajo in ,, ,, ...	1,760	88
Bundano in ,, ,, ...	600	30
Moholo in ,, ,, ...	160	6
Kussum in ,, ,, ...	760	28
Doho in ,, ,, ...	300	11
Holondho in ,, ,, ...	2,180	85
Kosi in ,, ,, ...	280	10
Other jungle wood used as timber, Cubic Feet.	8,120	203
Firewood in tons	313	110
Total ...	...	2,204

It will be seen from the above statement that the amount realized on timber removed from forests under License and Voucher system during the year under report was Rupees 2,204 against Rupees 2,993 of the preceding year.

The decrease of Rupees 789 is said to be owing to a smaller number of licenses having been taken by traders in consequence of lowness of the freshes during the early part of monsoon.

There were no charges incurred under this head.

The following abstract shows the results of the License and Voucher system compared with those worked by Departmental Agency :—

Timber (exclusive of Firewood) removed under License and Voucher system.			Timber sold by Departmental Agency.*					Difference between Columns 3 and 8.	
Quantity in Cubic Feet.	Amount of Seigniorage levied.	Rate per Cubic Foot.	Quantity in Cubic Feet.	Amount realized.	Deduct amount of working charges exclusive of cost of plantation.	Net Receipts.	Rate per Cubic Foot.	In favor of License and Voucher system.	In favor of Departmental Agency.
1	2	3	4	5	6	7	8	9	10
36,560	2,094	About 11 Pies.	2,648	665	428	237	About 1 Anna & 5 Pies.	...	6 Pies

From the above results it would appear that selling timber by Departmental Agency is more profitable than disposing of it under the Voucher and License system ; but I am not yet in a position to express a decided opinion on the subject.

SECTION IV.

Yield of Forests.

The subjoined statement shows the quantity of timber and firewood sold or removed free of payment from the Gumsur and Surada Forests :—

Timber...	Departmentally, Cubic Feet	2,527
	On License ,, ,, ...	36,560
	Free ,, ,, ...	239,780
Firewood	On License, Tons	313
	Free ,, ...	61,532

* No deduction whatever has been made from the working charges shown in Column 6 on account of the proportionate cost of the increased stock of timber of Rupees 50 value which remained on hand at the close of the year under report, because a portion of the last year's stock was sold for Rupees 77 more than the estimated value, and, because, if it were not for this, there would have been a deficit in the balance of about 27 Rupees worth of timber.

SECTION V.

Financial Results.

The accompaniyng Statement A shows the receipts and charges during the year, and the following is an abstract thereof :—

Items.	Receipts.	Amount.	Items.	Charges.	Amount.
		RS.			RS.
I.	Sale of Timber brought to Depôt by Departmental Agency	665	I.	Timber expenses for felling, &c.	273
			III.	Feed and keep of cattle ...	133
II.	Sale of Timber, &c., removed on License...	2,204	VI.	Plantations	36
VII.	Sale of confiscated drift and waif timber	7	VII.	Forest Work, viz., cutting creepers, &c.	22
					464
				2 Establishment and Office Contingencies	2,574
	Total ...	2,876		Total ...	3,038

From the above statement it will be found that the charges, inclusive of Rupees 60 being the rent of the Forest Office which is debited to Provincial Services, and is not therefore shown in the Forest Accounts, exceed the receipts by Rupees 222.

The receipts from all sources during the year (including Rupees 513 being value of timber supplied to the Public Works Department) were Rupees 2,876 against Rupees 3,678 of 1872-73. The decrease of Rupees 802 is said to be chiefly the result of the Zemindars of Korada and Ronaba having diverted the traders to their own forests by underselling the Government.

The expenditure of the year under notice was Rupees 3,038 against Rupees 3,200 of 1872-73. The decrease of Rupees 162 is owing partly to the rent of the Forest Office having been debited to Provincial Services, and partly to the reduction in the item of "Feed and Keep of Cattle" in consequence of the death of five buffaloes during the latter part of the year 1872.

The following Statement shows the receipts and charges of the Gumsur and Surada Forests :—

G.—Statement showing the Financial transactions of the Forest Department for 1873-74.

Expenditure.	Receipts.	Difference between Columns 1 and 2.	Value of Timber in Depôt.	Increase of Stock during the year.	Decrease of Stock during the year.	True results of the year calculated on Columns 3, 5, and 6.
1	2	3	4	5	6	7
RS. 3,038	RS. 2,876	RS. —162	RS. 861	RS. 50	RS. ...	RS. —112

The stock in hand at the commencement and the close of the official year is shown in Statement D in detail, an abstract of which is given below :—

H.

—	At the commencement of the year.	At the close of the year.	Difference	
			In favor of the year.	Against the year.
	Rs.	Rs.	Rs.	Rs.
Gumsur and Surada Forests	811	861	50	...
Total Assets ...	811	861	50	...
Add total valuation of Timber as per Statement B	638			
Total ...	1,449			
Deduct total valuation of Timber sold during the year	665			
Total ...	784			
Add increase on the valuation of the last year's stock	77			
Balance of Stock at the close of the year ...	861			

From the above it will be seen that the value of stock on hand at the close of the year is more than that at the commencement of the year by Rupees 50.

SECTION VI.

General Remarks.

There is a great falling off in the Forest Revenue owing, as has already been stated, to some of the Zemindars having diverted certain traders by underselling Government. The Overseer complains of the insufficiency of the present preventive staff, and urges the necessity of entertaining six additional Peons, at Rupees 6 each per mensem. Though I have not yet come to any definite conclusion on the point, I have made provision for this increase in the Budget-Estimate for the next official year.

Twenty-five persons were prosecuted under mischief for felling, burning, and destroying trees in the forests to the value of Rupees 300, and for having illicitly encroached upon portions of forest ground for cultivation purposes. Of this number, only fifteen persons were punished—eleven for one, and four for two months' rigorous imprisonment each, respectively.

The health of the Forest Establishment has been very indifferent, and the Forest Overseer says that he has been completely bed-ridden for a time from attacks of fever and diarrhœa. He assigns this as his excuse for omitting to furnish this office with data for the preparation of this report. I regret the delay that has unavoidably resulted therefrom.

The subjects in paragraphs 3 and 5 of the Overseer's report will receive early attention.

The report is not as complete as I could wish in consequence of the non-receipt from the Overseer of information on certain points ; but I have thought it proper not to delay its submission on that account, in consequence of his illness, as it is already over due.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) R. DAVIDSON,
Acting Collector,
and *Conservator of Forests, Ganjam.*

ENCLOSURE 1.

FOREST OFFICE,
RUSSELCONDAH, 16*th August* 1874.

From

MR. T. G. FREEMAN MACCALLY,
Overseer of Forests, Gumsur,

To

R. DAVIDSON, ESQ.,
Collector and Conservator of Forests, Gumsur,
Ganjam District.

SIR,—I have the honor to forward my Annual Report and Accounts for the official year 1873-74.

2. The various forests under my charge have been duly visited, excepting those on the frontiers which from ill-health I was disabled, but I trust to do so as soon as I am able to undergo the exposure to those malarious localities.

3. Their conservancy has been attended to consistent with the means at my disposal, which is quite inadequate ; from the scattered state of these forests, interspersed as they are by numerous villages and their wet and dry cultivation (which have been originally formed from forest clearances), the ryots of each village depend on them for their wants in domestic, agricultural and building purposes free of taxation for unreserved wood, as well as all the villages of Gumsur and Surada, where there is little or no forest within their limits. Where encroachments in the forest have been discovered from new clearances aside cultivation, it has been reported and dealt with magisterially ; also parties who have usurped lands in the interior of, and destroying forests and bringing them under cultivation illicitly have also been dealt with accordingly, but since the receipt of Proceedings of Government, dated 20th December 1873, No. 2,052, a number of parties who have committed themselves by mischief or theft in forest matters have been reported, and as soon as the Conservator's permission is given to do so, they will be prosecuted. Direct prosecutions have ceased since the above order, and the parties who have committed themselves are under the impression from the references made that they will escape punishment.

4. All the produce of the new grounds illicitly brought under cultivation by the destruction of forest has been treated agreeably to Revenue Circular, No. 20, under " Sevoy Jama."

5. A number of forest lands which had been given on Kowle Bunjurs before the conservancy was established, and even after it without the knowledge of this department are being examined by me wherever it was possible within forest tracts, and I regret to state that I have observed several that have exceeded their limits doubly and trebly in quantity to that allowed to the parties in their puttas, by which there has been much destruction of forest, which I have brought to the notice of the Tahsildar of Gumsur for inquiry. The Curnams and Carjees or village authorities render little assistance in bringing these clearances to notice, notwithstanding the warning issued by the Collector on the subject, which originated from my representation when I brought the Kookoolbah, &c., Bunjers to his notice on 20th September 1869, and alluded to it in my Annual Report for 1869-70.

6. All the applications during the year for lands within the forests required for cultivation " on Kowle" were referred to this department by the Tahsildar of Gumsur. They were one by one duly examined by me and reported upon when returning them, explaining the quantity of the trees on the various grounds, and if they could, or not, be granted for cultivation. Many of these grounds I found to have been usurped by the applicants who had destroyed the trees on them, and brought portions under cultivation illicitly before they had ever made their applications. The Tahsildar of Gumsur was informed of it, and the produce of such lands have been treated under Revenue Circular, No. 20, and the parties dealt with magisterially.

7. The cattle of this department remained as it was in last year—three buffaloes. I did not consider it prudent to purchase any to replace the five that had died, the cattle in this Range

being not so healthy as desirable, since the prevalence of the cattle disease of last year. These will be replaced when good and healthy animals are procurable.

8. My small experimental Teak Plantation, which was only 150 feet square when it was first begun (and the first four teak trees introduced in the forests of Gumsur by me planted in it on the 29th November 1869), has been gradually increased and occupies a space now of 2½ acres. These four trees are now in dimensions as follows :—

1 Forty feet high by one foot girt at bottom.
1 Twenty-five feet high by ten inches girt at bottom.
2 Twenty do. by nine do. do.

The 156 since planted are below these dimensions to a few inches from the ground. This ground is well adapted for the growing of teak and mango, the other plants that I have added to it are very poor in appearance. Many seedlings were destroyed by white-ants, some have been replaced. During the hot season difficulty is experienced from the want of water, and the Malee, or man in charge, has to go the distance of a mile for it, when the little pit with water, which is in the plantation, is dried up ; this generally occurs in the hot weather. A well sunk in the plantation is desirable.

9. The following are the trees in the plantation :—

	No.
Tectona grandis, Teak	160
Acacia Arabica	7
Poinciana regia	2
Sapindus emarginatus	10
Sumach	8
Inga dulcis	3
Mangifera Indica	31
Acacia Ashoka	33
Artocarpus integrifolia	15
Cordia Myxa	1
Bignonia Suberosa	10
Total	280

10. 503 cart-loads of unreserved kinds of wood, equivalent to 10,060 cubic feet, were permitted to be felled and removed from the forests, free of taxation, for the rebuilding of sixty-three ryots' houses burnt during the year, the seigniorage of which, if it had been realised, would amount to Rupees 251-8-0.

11. 137,832 cart-loads of firewood for fuel have been estimated as removed from the forests during the year by the whole of the ryots of Gumsur and Surada equivalent to 61,532 tons, free of taxation, the seigniorage value of which, if realized, would amount to Rupees 21,536-4-0. For agricultural purposes the unreserved kinds of wood used by ryots free, has been estimated at 11,486 cart-loads = 229,720 cubic feet, seigniorage value, if realized, would amount to Rupees 5,743.

12. 159 cart-loads of reserved wood = 2,526·985 cubic feet were felled and removed by this department during the year which was consistent with the demands anticipated.

13. Forty-three cart-loads of reserved wood = 597·962 cubic feet were sold by this department to private individuals for Rupees 152-1-7.

14. The Department of Public Works, No. 3 Range, was supplied with 120 logs of timber = 2,049·830 cubic feet to the value of Rupees 512-6-11.

15. 1,828 cart-loads of reserved and unreserved kinds of wood = 36,560 cubic feet were felled and removed from the forests on the Voucher and License system, the seigniorage of which amounts to Rupees 2,094-8-0, and 701 cart-loads of firewood = 313 tons, at Rupees 109-8-6, making a total of collections of Rupees 2,204-0-6.

16. During the rafting season advantage having been taken of the first freshes the rafts that had been grounded were floated down the rivers, the license holders consequently took out very few licenses for rafts fearing disappointment, as the freshes during the past monsoon have been very low, there has been therefore a falling off of seigniorage on this account.

17. Having in my last report alluded to the Zemindars of Ronaba and Korada of Gumsur Taluq and their agents carrying on extensive traffic in wood from their forests, which has to go through ours; their under-rating the seigniorage which is levied in Government forests has drawn away most of our customers who have preferred the Zemindari from the cheapness of seigniorage; the wood also sold by them under-rates the sales of this department. The Zemindari traffic has, I regret to say, resulted in our collections being less, and has affected the Revenue of this Department, the sum of Rupees 161-6-0 being against it for this year. I need only add to what I have already said in my last report, that the Zemindari forests are being fast denuded of their best timber, no conservancy means being adopted for their preservation, and ere long, I hope, our license holders will fall back on one forests for their wood. The strictest supervision being necessary for the protection of our forests on the Zemindari frontiers, I preferred my request for sanction to a few watchmen or extra peons being employed, but it was not complied with.

18. Twenty-five persons were prosecuted under mischief for felling, burning, and destroying trees of the reserved and unreserved kinds in the forests to the value of Rupees 300, usurping the grounds and bringing them under cultivation illicitly; of these only fifteen were punished by the Tahsildar of Gumsur as follows :—

Four persons to two months' rigorous imprisonment.

Eleven ,, to one month's ,, ,,

19. The health of my establishment has been very indifferent this year, also several of my peons have been occasionally laid up from fever, dysentery, and spleen, and I have never suffered so severely from the former disease and diarrhœa and other ailments, as of late, from which I have been completely bed-ridden, resulting in my constitution being much affected, and occasioned, I regret to say, much delay in the transmission of these papers, which would never have occurred, had not protracted ill-health since the close of the official year been an obstacle.

1	Set of	9 Statements.
1	,, of	5 do. A, B, C, D, and E in duplicate with eight Department Public Works vouchers attached (original.)
1	,, of	5 do. A, B, C, D, E.
	Total	19

20. I append herewith nineteen Statements with eight vouchers attached as per margin.

21. The total amount of receipts has been Rupees 2,363-5-1, and the value of timber supplied the Department of Public Works, No. 3 Range, Rupees 512-6-11, makes total of revenue Rupees 2,875-12-0, deducting this from the expenditure of Rupees 3,037-2-0, leaves a balance against the department of Rupees 161-6-0. The value of timber on hand is Rupees 860-11-3, from which amount Rupees 161-6-0 against the department being deducted, leaves a balance of Financial Results of Rupees 699-5-3 as per statement attached.

FINANCIAL RESULTS.

Receipts.

	Rs.	A.	P.			
Sale of timber at depôts	152	1	7			
Sale of timber removed by purchasers	2,204	0	6			
Sale of confiscated timber	7	3	0			
				2,363	5	1
Value of timber supplied to Department of Public Works...				512	6	11
Total, Receipts ...				2,875	12	0

Expenditure.

Conservancy and Working	463	9	0			
Establishment	2,559	6	0			
Office Contingencies	14	3	0			
				3,037	2	0
Balance against the Department ...				161	6	0
Value of timber depôts on the 31st March 1874				860	11	3
Deduct sum against the department				161	6	0
Balance, Financial Results...				699	5	3

(Signed) T. G. F. MACCALLY,
Overseer of Forests, Gumsur.

No. 1,996.

From

CAMP BERHAMPORE, *2nd October* 1874.

R. DAVIDSON, ESQ.,
Acting Collector and Conservator of Forests, Ganjam,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—Adverting to paragraph 4 of the Proceedings of the Board of Revenue, Forest No. 4, dated the 27th January last, and my report on the administration of Forests, No. 1,945, dated the 26th ultimo, I have the honor to state, for the information of the Board, that the Forest Overseer expresses his inability to give the correct area of the reserved forests as they have not yet been surveyed, but that he estimates them to contain an approximate superficial area of 600 miles.

2. With regard to "the number or value of the timber or other valuable trees contained in them" the Overseer says that he is not aware of any method of estimating their number except by counting them, which is quite impossible.

3. A copy of his letter on the subject, dated the 27th ultimo, No. 50, is herewith sent.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) R. DAVIDSON,
Acting Collector and Conservator.

ENCLOSURE 1.

No. 50.

FOREST OFFICE,

RUSSELKONDAH, *27th September* 1874.

From

MR. T. G. F. MACCALLY,
Overseer of Forests, Gumsur,

To

The Deputy Collector in charge of Treasury, Chetterpore.

SIR,—In reply to your memorandum of the 24th instant, No. 2,078, with reference to the following question therein alluded to, (1), Area in acres of the portion of the reserved forests, I would beg to state that the Gumsur Forests have never been surveyed and they are so interspersed with villages and their cultivation—which have been formed from forest clearances—that it will be necessary for it to be done before this information can be accurately given. The taluq has never been surveyed by "Revenue;" the Revenue and Demarcation Survey Departments have recently entered this taluq and only made a beginning.

2. I have estimated the forests of Gumsur approximately to be of a superficial area of 600 miles, as stated in my annual report for 1869-70, the felling of timber of large girt, *wherever found*, being departmentally, while that below five-feet girt being permitted to be felled under the voucher-and-license system.

3. With reference to the second question, (2), Estimated number and value of timber and other valuable trees contained in them, I would beg to state that these are natural forests and self-propagated from seed; that I do not understand any method of estimating their number but by counting them, which is an impossibility. If these were artificial forests and originally registered their number could have been ascertained.

4. Under these circumstances, I was disabled to give the information required and therefore could not include it in my report.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) T. G. F. MACCALLY,
Overseer of Forests, Gumsur.

No. 719.

VIZAGAPATAM, 12*th May* 1874.

From

J. F. SNAITH, ESQ.,
Acting Principal Assistant Collector,
in charge of the District,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—In accordance with Revenue Board's official memorandum, dated the 20th February, Forest No. 22-222, I have the honor to report on the administration of the Golugonda Forest for the year 1873-74.

2. The amount realized during the past year by the sale of timber and bamboos was Rupees 324-13-0 against Rupees 40-3-0 in 1872-73. The increase is due to the more stringent enforcement of the conservancy rules and more careful supervision of the forest peons.

3. The total expenditure for the year on salaries and contingencies was Rupees 488-3-6, a considerable saving having been effected by the dismissal of the Overseer in August last.

4. Twelve criminal prosecutions were undertaken during the year and in seven cases convictions were obtained.

5. The people complain that the rates levied for timber, *etc.*, not required for domestic purposes are too high, but they do not seem to be excessive.

6. The system of granting free passes to ryots does not produce satisfactory results as the ryots frequently trade with the wood so obtained. Careful supervision will, however, do much to remedy the evil.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) J. F. SNAITH,
Acting Principal Assistant Collector,
in charge of the District.

No. 226.

CUDDAPAH COLLECTOR'S OFFICE,
ON CIRCUIT AT KANALMUDGU,
30*th September* 1874.

From

W. D. HORSLEY, ESQ.,
Collector of Cuddapah.

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honor to submit my report* of the administration of the Forests in this District for 1873-74.

* With statements.

2. No portions of the forests are reserved except for railway fuel. To reserve forests for timber at a distance from the railway is unnecessary, because the demand is little more than local.

In the Pullampett taluq, through which the railway passes, it will not be possible to reserve forests for timber as well as for fuel. It is as much as I can do to obtain hill tracts for the latter purpose, and I could not reserve for timber in that taluq without interfering with ryots' privileges. Patches of forest where red-sanders is known to thrive may be enclosed with advantage to save the saplings from destruction by the shepherds.

3. At Ballapalle there are two tracts of forests set aside as fuel reserves. No. 2 is still unfenced, as money was not available for the purpose till too late in the year. No. 1 is an old reserve, and the expenditure incurred consists of the monthly salaries of two watchmen. The same is to be said of the Salakuntachenu reserve. The Codoor hill reserve has been partly fenced, but the sum, Rupees 500, advanced to the Contractor does not appear in the year's accounts, as the work was not completed at the close of the official year. The Yerraguntakota reserve was also incompletely fenced at the close of the year, and, similarly, Rupees 1,500 advanced to the Contractor do not appear as a charge against the reserve. The only expenditure has been the salary of watchmen. These last two reserves are those I alluded to in my last year's report as to be taken in hand when certain difficulties as to roads and boundaries had been overcome. In another portion of forest not reserved it has been necessary to employ watchmen to prevent a neighbouring Shrotriemdar from felling in the Government Forests. As reserves the Yerraguntakota and Codoor hill tracts may be said to be complete, and thus Acres 7,000 have been added to the reserves, making the total estimated extent in this district Acres 11,133. I have made arrangements for adding large tracts of hill forest to the reserved area.

4. No fuel or timber have been taken from the reserves, nor will they be taken so long as the open forests can supply the railway with fuel. Consequently there are no receipts while the charges exclusive of the cost of fencing have amounted to Rupees 518 including the salary of watchmen on the Shrotriemdar's boundary.

5. The plantations have not increased in number or in extent since last year. It is very much to be regretted that such useless and expensive works were ever commenced, or, if undertaken, that they were not properly started. If the ground had been ploughed, manured, wells dug, and the trees transplanted from nurseries into large pits, there would have been a better show now for the money that has beeen spent. But even then the plantations as fuel reserves would be failures financially.

6. The red-sander experimental plantation at Codoor is doing very well. The soil is good, and the Deputy Conservator, whose headquarters are at Codoor, has been able to give more of his attention to this, than to the other plantations. I never could understand the object with which this plantation was formed. Every one knows that red-sanders grows in the Pullampett taluq, and what was the experiment that was to be tried by means of the Codoor plantation is not apparent.

7. The remaining four plantations are for the purposes of fuel. That at Upparapalle appears to have thrived the best. The Pullampett plantation has, I think, been carelessly worked, and the progress made is less than it should have been. There is an improvement in parts of the Reddipalle plantation, but on the whole this work is a failure owing to the poorness of the soil. The Kamalapur plantation I have been unable to visit this year. There have been naturally no receipts from any of the plantations. The experimental work at Codoor has cost Rupees 441-12-0. The fuel plantations have cost Rupees 2,648-13-6. The charges this year have been smaller than those of last year by Rupees 6,289-13-8. These figures will not tally with those in the statements, because for some mysterious reason connected with accounts the salaries of the establishment employed on the Kamalapur plantation is debited to one head of account, Expenditure B, while the salaries of the servants on the other plantations are debited to Working Charges in Statement A. This decrease in expenditure is owing to reduction of establishment. It was not known till late in the year what would be the allotment for working charges, and the reduction was made fearing that the grant would be exceeded. The smaller the expenditure on these useless plantations the better. I hope to be able to reduce the charges still further. When the open spaces in the

plantations have been ploughed and sown broadcast it will only be necessary to keep two men on each plantation to watch and to keep up the fences. No such reduction can be made on the experimental plantation.

8. The open forests are worked on the license and voucher system. The receipts amount to Rupees 50,329-9-2, a smaller sum than that collected in the year before by Rupees 516. The decrease is not large, but it will increase yearly until the Shrotriemdars have denuded their forests, when the demand will again be made on the Government Forests. The loss of revenue is not so much to be regretted, but it is a pity that forests, wherever they may be, and to whomsoever they may belong, are being injudiciously felled, so that they must in a few years disappear altogether. The receipts include seigniorage collected on engine wood. The expenditure is included in the working charges of the district.

9. The Railway Company pay Rupee 1 for every 1,000 lbs. of wood received from the Contractors. Tons 17,430 of wood have been received by the Company who have paid seigniorage amounting to Rupees 39,043, a sum in excess of last year's receipts by Rupees 2,102. Thus the Railway continues to eat up the forests to an extent which quite puts into the shade all the much talked-of havoc committed by the people of the country. Out of Rupees 50,300 receipts on account of seigniorage, Rupees 39,000 have been paid by the Railway Company, while only Rupees 14,000 have been paid by the people generally. The increase in the receipts on account of engine wood is ascribed to the consumption of fuel by machinery connected with the building of the new Cheyair Bridge.

10. The sale of wood stored in depôts has this year fallen off. The demand for red-wood has been slight. I do not know whether special circumstances connected with trade will account partly for this. There is, however, no doubt that owners of private forests such as Agraharamdars and others are underselling the Government, and are drawing customers from the depôts. The sales of depôt wood this year realized but Rupees 1,819, while during the previous year the receipts were Rupees 21,884. Of this last sum, Rupees 17,920 were realized by the sales of red wood alone. It is, therefore, quite clear that the decline in the demand for red-wood this year has caused the decrease of Rupees 20,064 in the receipts. The collection of red-wood stumps and roots in the depôts will cease until a demand arises. The cost of collecting and carting wood to the depôts amounted to Rupees 9,857, including seigniorage. The value of the wood remaining in the depôts at the end of the year was Rupees 12,018.

Vide Statement D.

11. The value of wood taken by the ryots on free passes was Rupees 3,036. This sum does not represent the value of all the wood taken, because only bandy-loads and not head-loads of wood are taken into account, and because the people do not always apply for passes but take the wood and risk detection. The Deputy Conservator estimates the proper value at double what the passes issued show. Even if it were more than double the item is a small one, and the drain on the forests is almost nothing compared with what the Railway takes. The money realized by confiscations amounts to Rupees 463.

12. There have been only twenty-one criminal prosecutions. Convictions were obtained in sixteen cases. This shows that the Forest Rules have not been harshly or unnecessarily worked. I can mention no instance in which the provisions of G.O., No. 2052, dated December 20th, 1873, have caused a miscarriage of justice, but there is no doubt, as the Deputy Conservator says, that cases may arise in which offenders may escape punishment in consequence of that order. I do not myself see the necessity of the order.

13. The total revenue from the forests amounted to Rupees 52,657. The total expenditure was Rupees 20,890, leaving a net profit to Government of Rupees 31,767, which, when added to the value* of wood remaining in the depôts, amounts to Rupees 43,785. The receipts were

*Rupees 12,018.—*Vide* Statement D.

estimated in the budget at Rupees 55,500. Considering the falling off in the red-sander wood sales, the decrease in the actuals is unimportant. The charges as sanctioned by Government amounted to Rupees 9,694 more than those actually incurred. This decrease is accounted for by a smaller expenditure on the plantations and by the economy enforced at the commencement of the year when it was not known what allotments might be made for expenditure. The total decrease of revenue, as compared with last year's receipts, is due to the falling off in the wood-depôt sales, and but for a reduction of expenditure the decrease would have been large.

14. Fever has as usual been more or less prevalent in the forests. There have been three deaths among the forest servants, but I think on the whole fever has not been so severe as in former years.

15. Enclosed is the Deputy-Conservator's report.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) W. D. HORSLEY,
Collector.

ENCLOSURE No. 1.

No. 24.

DEPUTY CONSERVATOR'S OFFICE,
CAMP CODOOR, *29th April* 1874.

From

H. H. YARDE, ESQ.,
Deputy Conservator of Forests, Cuddapah District.

To

W. D. HORSLEY, ESQ.,
Collector and Conservator of Forests, Cuddapah.

SIR,—I have the honor to submit you the Annual Administration Report of my Range for the official year 1873-74, together with the necessary accompaniments.

SECTION I.

2. (*b.*) *Inspection Tours of Range Officer.*—During the year under review, I have continued in charge of the Range, and during the period, my visits and the number of days I was out of headquarters were as follow :—I made 109 visits ranging over 178 days to the following places :—Salakuntachenu, Ballapalle, and Yerraguntakota railway fuel reserves. Kamalapur, Reddipalle, Pullampett, and Upparapalle in the Cuddapah, and Ghooty railway fuel plantation in the Bellary District. Boodooguntapulli, Punnuskonale, Yellalavarekundrikey, Vacateemudgoo, Nukunapulli, Shettiguntah, Nagavaram, and Strinivassapuram Kothapulli Agraharam hills and forests. Rajumpett tannah, Buthunguddah, Vobulvarepulli, Gathalla, and Vurdiahgarepulli villages for periodical auction of confiscated timbers. Ten days was occupied in my proceeding to Nellore and back to give evidence in the suit filed by the Venkatagherri, against the Kalaistry Rajah, for some portion of the hill forests. In November and December 1873 I was sick and convalescent for twenty-two days from dysentery and fever, and the remaining 151 days were spent at headquarters, which time was occupied in office routine work, preparation of administration report and annual accounts and returns, monthly accounts and returns, periodical auctions at depôts, &c., &c., besides being engaged with the Revenue Settlement Officers regarding the disputes of boundaries of Shrotriemdars' lands, and jungles, and our forests, and the very important work of selecting plots for railway fuel reserves in the Pullampett taluq. During these travels and visits, I could not

but notice the insufficiency of our establishment as a Forest Police to watch against illicit and clandestine felling, the outlets from forests being too numerous, and the tannahs situated so far apart.

SECTION II.

Reserves.

3. *A. Reserved Forests.*—None. Only that in all the forests the felling of teak is strictly prohibited, while the red-sander posts and its roots and stumps are felled and stored departmentally in our depôts, and sold periodically by auction. Previously (some years back) licenses used to be issued for the dye-wood and posts.

B. Fuel Reserves.

4. *Ballapalle Railway Fuel, No.* I.—From 1st April 1873 to 31st March 1874 two watchmen have been employed at the rate of Rupees 6 each per mensem, making the charge on this reserve for the period Rupees 144, and is the same it cost in 1872-73.

5. *Ballapalle Railway Fuel, No.* II.—No expenditure has been incurred on this reserve during the period for which this report has reference to. No men employed, and the plot is as yet unfenced. Money was not available till too late in the year, and consequently had to lapse Cost for 1872-73, nil.

6. *Sallakuntachenu Railway Fuel.*—Rupees 216 were spent during the year by the employment of two watchmen and a gardener at Rupees 6 each per mensem, being the same as it cost in 1872-73.

7. *Codoor Hill Railway Fuel.*—No cost as yet. No men employed. Fencing work in progress, for which an advance of Rupees 500 has been made, but does not find a place in this account, the work not being completed and accounted for in the past year's bills. In 1872-73 nothing was spent on this reserve.

8. *Yerraguntakota Railway Fuel.*—From the 1st September 1873 to 31st March 1874, Rupees 84 was the expenditure on account of the two watchmen employed at Rupees 6 each per mensem. Rupees 1,500 is an advance to Contractor for fencing against this reserve; from the non-completion of the work, a bill for that amount has not been submitted, nor does it appear in this year's account. Cost for 1872-73, nil.

9. *Strinivassapuram Kothapulli Agraharam Jungles.*—This is a Shrotriemdar's jungles adjoining our forests, and as they are working them, two watchmen were engaged to prevent the wood-cutters entering ours for illicit felling, costing Rupees 144 for the year. Cost for 1872-73, Rupees 144.

10. The cost for travelling by rail to visit these railway fuel plots for the past year has been Rupees 229-12-0, being Rupees 102 in 1872-73, and the total cost for all the above, including the watching of the last-mentioned Shrotriemdar's jungles, Rupees 817-12-0 as per Statement A., "Expenditure A, Conservancy and Working; VI. (*a.*) Reserve Tract, Railway Fuel," while the total expenditure in 1872-73 was Rupees 606. The excess in total expenditure during the year 1873-74 is Rupees 211-12-0 caused chiefly by my more frequent travels, by rail, to visit these railway fuel plots, with an addition of Rupees 84 on account of the employment of two watchmen on the Yerraguntakota railway fuel reserve during the year.

11. Having curtailed the expenditure on all the railway fuel plantations in this and the Bellary District and other heads of the working charges, and anticipating a saving of Rupees 6,207-7-10, on my application sanction was accorded in your letter, No. 7, dated 20th January 1874, for utilizing that amount on the railway fuel reserves, and accordingly Rupees 1,500 were advanced to the Contractor on the Yerraguntakota, and Rupees 500 on the Codoor Hill railway fuel reserve. The end of the official year following so closely on, the work could not be completed and bills submitted. It would not have been judicious to have planted the bank with young aloes when there was no rain, as they would have died away from want of moisture. As soon as

the early rains commence that work will be carried out, measurement made, and completion bill forwarded for the outstanding advance of Rupees 2,000, thus Rupees 4,207-7-10 of the savings, sanctioned to be spent on reserves, have lapsed. I must reiterate my previous assertions with reference to the improvement of the jungles within the enclosures of our railway fuel reserves, chiefly attributable to prevention of fires and trespasses of all kinds. The plots have become dense by the undergrowth and saplings being saved from getting scorched and burnt. Nurseries are being maintained on the finished reserves, and young plants put out from them in open spaces and where the trees are scant; and, where practicable, I would advise ploughing and broadcast sowing of seeds, and left to their own resources for springing up, as do the other plants of the forests in their natural way of germination.

12. The form or statement called for in Board's Proceedings, No. 133, dated 27th January 1874, paragraph 18, is herewith appended.

C. Plantations.

13. *Codoor Red-Sander Experimental Plantation.*—On this plantation, to decrease the distances of the trees young plants have been put in between each two, in pits and channels. Red-sander seeds have been collected, nursery-beds prepared, and sown with them together with different other species. The general upkeep of the nursery was attended to. The whole of the plantation weeded and cleared of overgrowth of useless plants, and the younger plants watered throughout the hot months when they needed it very much. Of the 2,438 plants brought on the list of established trees, the following are the numbers and species. Pterocarpus santalinus 1,000, Albizzia Lebbek 300, Tectona grandis 200, Cassia florida 500, and Melia Azadirachta 438, thus increasing them to 21,438, which computed at the total cost will give us nearly 0-3-10 per tree, or 4 per Rupee.

	Rs.	A.	P.
Plantation working charges	273	12	0
Hired establishment	168	0	0
Total ...	441	12	0

14. The expenses incurred on this plantation during the year 1872-73 were Rupees 444-9-2, or Rupees 2-13-2 more than the present. There has not been much change in the system on this plantation owing to its being an experimental one, accounting for the very slight difference in expenditure.

15. *Upparapalle Railway Fuel.*—In all 12,469 plants were supplied from the nursery, *viz.*, 3,729 freshly transplanted out, and 8,740 casualties replaced. Of the former, the following species, 2,800 Albizzia Lebbek, 55 Pterocarpus marsupium, 400 Terminalia glabra, and 474 Mangifera Indica, and of the latter 8,700 Albizzia Lebbek, and 40 Pterocarpus marsupium. The casualties that occurred 1,954, *viz.*, 621 Albizzia Lebbek, 652 Melia Azadirachta, 256 Acacia Arabica, 12 Muthy, 28 Pterocarpus marsupium, 325 Cassia florida, and 60 Casuarina equestifolia. Forty-two nursery-beds prepared and sown with seed, as follows: 9 Melia Azadirachta, 14 Pterocarpus santalinus, 7 Mangifera Indica, 9 Albizzia Lebbek, 2 Adinanthera Pavonina, and one Mahogany: 1,738 pits excavated, 3 bags Pterocarpus santalinus, and 33 measures Acacia amara seeds collected, 86,953 plants watered, 60 nursery-beds weeded, 3,808 plants weeded and cleared around, 187 channels, or 1,194½ chains channelling cleared and weeded, 59 channels or 191 chains fresh trenches sown with Albizzia Lebbek seeds, 150 failed channels of the Albizzia Lebbek sown with Albizzia Lebbek and Tamarindus Indica seeds, the former 56 and the latter 94; 28 failed channels of the Eugenia jambolana sown with 20 Tamarindus Indica and 8 Melia Azadirachta, 980 pits sown with the seeds of Tamarindus Indica, being 440 where the Melia

Azadirachta, and 540 where the Albizzia Lebbek failed. The general upkeep of the nursery by occasional watering at times, and daily when the weather was adverse, together with the weeding and clearing of the beds, were looked to—

	RS.	A.	P.
Plantation working charges	484	8	0
Hired establishment	156	0	0
Total ...	640	8	0

16. The expenditure on this has been Rupees 117-1-0 less than last year.

17. *Reddipalle Railway Fuel.*—21,397 plants weeded and cleared around, 44,097 plants watered, 28 chains aloe fencing repaired, 11 acres land cleared of brushwood for ploughing and sowing Acacia Arabica seeds broadcast, 297 chains channelling cleared and weeded, 10 chains planted with thorn fence where it was impracticable to make the aloe fence grow, 3,575 plants put out from the nursery, *viz.*, 580 Melia Azadirachta, 2,870 Albizzia Lebbek, and 125 Cassia florida; 1,010 pits excavated. Casualties 1,745 in the following species: Casuarina equestifolia 201, Cassia florida 50, Acacia Arabica 472, Albizzia Lebbek 1,020, 1 Mahogany, and 1 Artocarpus integrifolia. Thirty-five nursery-beds prepared and sown with seed, *viz.*, 34 with Albizzia Lebbek and 1 Mahogany; 670 chains fresh channelling sown with Albizzia Lebbek, Tamarindus Indica, and Acacia Arabica seeds; 40 channels or 600 chains old channelling sown with the Albizzia Lebbek, Tamarindus Indica, and Acacia Arabica seeds in which they failed to germinate previously, and watering and general upkeep of the nursery :—

	RS.	A.	P.
Plantation working charges	494	7	6
Hired establishment	156	0	0
Total ...	650	7	6

18. This year's expenditure is less by Rupees 1,878-14-0 than 1872-73.

19. *Pullampett Railway Fuel.*—Two by one chain land cleared for ploughing and broadcast sowing; 19 channels or 499 chains of channelling cleared and weeded, 2,700 plants weeded around, 1,303 pits excavated, 120 measures Albizzia Lebbek seeds collected, 37 nursery-beds prepared and sown with seed, *viz.*, 1 Mahogany, 6 Muthy, and 30 Albizzia Lebbek, 5,697 plants were supplied from the nursery though 6,587 was the number transplanted out, the remainder 890 were taken from the channels where they were growing too closely together, *i.e.*, thinning, *viz.*, 1,677 Melia Azadirachta, in all 1,534 from nursery and 143 from channels. Cassia florida 861, 112 from channels and 749 from nursery, 2,285 Albizzia Lebbek from nursery, 674 Eugenia jambolana, 635 from channels and 39 from nursery, 26 Pterocarpus santalinus from nursery, 1,064 of the 6,587 transplanted were the casualties replaced in the following kinds: Casuarina equestifolia 1,064, Melia Azadirachta 200, Cassia florida 175, and Albizzia Lebbek 634. Plants watered 44,788. The number of casualties that occurred during this period was 1,915 as follows: 118 Cassia florida, 20 Casuarina equestifolia, 870 Albizzia Lebbek, 610 Melia Azadirachta, 227 Acacia Arabica, and 70 Eugenia jambolana, 7 channels or 63 chains failed channelling sown with 45 Eugenia jambolana, 9 Acacia Arabica, and 9 Albizzia Lebbek seeds; 16 channels or 149 chains fresh channelling sown with 24 Eugenia jambolana, 24 Albizzia Lebbek, 16 Acacia amara, 8 Cassia florida, 44 Tamarindus Indica, 22 Acacia amara, and 11 Acacia Arabica. The general upkeep, or usual attention to the nursery was not overlooked :—

	RS.	A.	P.
Plantation working charges	499	5	0
Hired establishment	155	8	0
Total ...	654	13	0

20. This year's expenditure has been Rupees 3,560-8-0 below that of 1872-73.

21. *Kamalapur Railway Fuel.*—58,210 plants weeded and cleared around, six wells cleared spaded, and deepened, 155 nursery-beds prepared and sown with seed, *viz.*, 149 Albizzia Lebbek and 6 Casuarina equestifolia, 6 chains aloe fencing repaired, 400 Acacia Arabica seeds collected; 6,000 pits excavated; 8,300 plants put out from the nursery, 3,800 Albizzia Lebbek and 4,500 Casuarina equestifolia; 21,000 pits sown with seeds, 12,000 Albizzia Lebbek, and 9,000 Eugenia jambolana; 780 Casuarina equestifolia trees pruned; 16,760 casualties replaced, 260 Casuarina equestifolia, and 16,500 Albizzia Lebbek, and nurseries kept up by watering and weeding :—

	RS.	A.	P.
Plantation working charges	283	1	0
Sanctioned establishment...	420	0	0
Total ...	703	1	0

22. Expenditure for 1872-73 was Rupees 907-14-6, and is Rupees 204-13-6 above that of 1873-74.

23. The total expenditure on all the plantations has been, as per Statement A, Expenditure A., Conservancy and Working, VI. Plantations, Rupees 2,670-9-6, not including the Rupees 420 against the last plantation "sanctioned establishment," which is incorporated in the amount of Rupees 6,588 exhibited in the above-mentioned Statement, Expenditure B. Establishment, I. Salaries, *viz.*, one head gardener at Rupees 10, three under-gardeners at Rupees 6 each, and one peon at Rupees 7, making a total of Rupees 35 per mensem.

24. In 1872-73, not including the "sanctioned establishment" on the Kamalapur Plantation, the total expenditure on all was Rupees 8,518-11-2, while 1873-74 has been Rupees 2,670-9-6, or Rupees 5,848-1-8 less than 1872-73.

25. In April 1873, though there was only a small drizzling shower of rain, yet it came when it was much needed; it was not quite general. Some plantations were fortunate, while others did not get this fall. In May there being no rain much was the disappointment, and the plants commenced to look very bad from want of moisture. In the early part of June the heat was very excessive, and most part of the casualties occurred during this time; but towards the end of the month a couple of drizzling showers came to the rescue, and relieved me of much anxiety as I expected I would have had to report very unsatisfactorily on the health of the plants, especially the younger, though it did not tend to entirely put a stop to the plants dying away. In July there being no rain, casuals occurred to some extent, and to prevent further losses watering had to be taken on hand. August may be said to be the beginning of the planting season, and having had some few downpours of rain, advantage was taken of them; some transplanting work and replacing of casualties from the nurseries was got through sowing of seeds in channels that failed to germinate, and some fresh channels; besides putting out of plants in open spaces in channels and in lieu of those that died from last year's flooding; broadcast sowing could not be commenced from want of further rains during the month. During September as was anticipated the rains came and were heavier in the southern part of the Pullampett taluq, and the plantations there benefited more, however much good was done to all as the plants and trees commenced to look green and healthy. Copious showers of rain fell during the months of October and November, and much was done in the planting line as far as was permitted having in view the curtailment of expenditure under all heads. With the exception of a drizzle we have had no rain in December, though, as must be expected at this time of the year, the plants looked healthy on account of the heavy falling dew at nights, and cool days. In the months of January, February, and March 1874, the mangoe showers entirely failed us, consequently the want of water was and is being much felt, and the younger plants have to be supported by frequent watering to prevent unusual casualties being reported, the difficulty being increased by

the limited establishment, water being scarce, and the heat increasing daily, attended with high dry winds. The established plants are increasing in number as well as size and their appearance satisfactory on the whole, only the young plants suffer greatly. In August and September a good deal more planting and sowing work could have been done only for not knowing the sanctioned Budget Estimate for the year, till January 1874, though an advance only was placed at my disposal about the middle of July 1873, consequently I was almost in the same predicament during October and November. The establishment in consequence was curtailed for fear of exceeding the sum that would have been granted. Even in 1872-73, I was placed, similarly, under clenched circumstances, and a whole planting season irretrievably lost.

SECTION III.

26. *Forests worked under License and Voucher System.*—This system is in force throughout the district. None of the forests are strictly reserved from felling operations, with the exception of the selected plots for railway fuel reserves and which have not been as yet worked, and so they have not commenced to pay. A cost is incurred in maintaining them, taken from the working charges of the district; and I have explained in my paragraph 3, under "A., Reserved Forests," the description and nature of the departmental working.

27. The realization by the above system has been Rupees 50,329-9-2, as per Statement A., Receipts, heading I and VI. for 1873-74. That for 1872-73 Rupees 50,846-7-6, being Rupees 516-14-4 more than the present year. This includes the removal by wood-cutters of timbers, firewood, bamboos, &c., on licenses, and engine firewood taken by the Railway Company. In another section will be shown the quantity taken exclusively by the Railway.

28. *Timbers supplied to Public Works Department.*—No sales have taken place during the year to this department, as per Statement E1.

29. *Engine Firewood.*—To the extent of 17,430 tons $60\frac{5}{12}$lbs. was taken during 1873-74, realizing Rupees 39,043-4-2 at Rupee 1 per 1,000 lbs.; while in 1872-73, 16,491 tons 566½ lbs., valued at Rupees 36,940-6-6, was the revenue derived from this source, being 938 tons 1,734⅛ lbs., or Rupees 2,102-13-8 in excess of 1872-73, as per Statement E. last column.

30. The demand during this year must have been great, and hence a larger quantity accepted from the Contractor by the Company, the system being that the latter deducts Rupee 1 on every 1,000 lbs. supplied by the former, and pays into the Cuddapah and Pullampett Treasuries on account of the Government. The excess may also be accounted for, owing to the Cheyair Bridge works at Goondloor requiring wood for engine purposes for the stationary ones working in this river.

31. *Quantity of Timbers of all descriptions felled and stored in Depôts.*—77,440 maunds red-wood roots and stumps at Rupees 4-9-8 per 1,600 lbs. = Rupees 5,571-0-8; 971⅜ cubic feet, or 583 red-sander second-class posts at Annas 10 per post, or 1⅔ cubic feet = Rupees 364-6-0 were the quantities collected and stored in the depôts of Codoor and Ballapalle and paid for accordingly, or what it actually cost the department, to which must be added Rupees 468, what was paid for a Gumastah at Rupees 15 and four watchmen at Rupees 6 each per mensem, and Rupees 8 for storing and piling the above timbers, &c., aggregating Rupees 6,411-6-8 in all, as per Statement A. Expenditure A. Conservancy and Working, heading I., Timber Expenses for Felling, &c.

32. Statement B. shows the above-mentioned quantities collected as per colmuns 3 and 4; but 5, 6 and 7 exhibits the rates and valuation by addition of the rates of seigniorage per cart-load as was in vogue when licenses used to be issued for these commodities, *i.e.*, Rupees 3 on every 1,000 lbs. red-wood roots and stumps, and Rupees 6 to every twelve posts of twenty cubic feet per cart-load, making the valuation of the former Rupees 9,201-0-8, and the latter Rupees 655-14-0, and total of Rupees 9,856-14-8.

33. The collections during 1872-73 was 82,447 maunds 15 lbs. red-sander roots and stumps; 210 or 350 cubic feet first class, and 1,773 or 2,788⅓ cubic feet second-class Pterocarpus santalinus posts. And in 1873-74 dye-wood roots and stumps 5,007 maunds 15 lbs. less than 1872-73, and second-class posts 373 or 621⅔ cubic feet in excess of 1872-73. The second-class posts being in more demand, or realizing better prices, collection was made, while the first-class posts collection was postponed till a demand was heard of. There was also no calls for the dye-wood.

34. This is the extent of departmental felling, and these are the descriptions in which good profit can be expected, consequently taken on hand. I do not advocate working by departmental agency in the other kinds, as they deteriorate very much from long standing in the open, exposed to the weathers, and purchasers being diffident to purchase from our depôts owing to wood-cutters being able to undersell us and our rates.

35. *Timbers of all descriptions sold to Merchants from Depôts, by tender or auction and the quantity to be accounted for.*—1,038 feet $9\frac{5}{7}$ inches Thumbah wood stored for very many years in our Codoor Depôt was sold by public auction to the highest bidder, and brought in Rupees 632; six posts or ten cubic feet first class and 986 posts or 1,643⅓ cubic feet second-class red-sander posts, the former realizing Rupees 21, and the latter Rupees 1,166-11-3, making a total of Rupees 1,819-11-3, as per column 4, Statement C., and Statement A., Receipts, heading I.

36. In column 5, difference between columns 3 and 4, Rupees 354-13-7 is shown as decrease against the Depôt Thumbah wood. The wood had been lying in store for a very lengthened period without finding purchasers, having deteriorated very much, and was becoming still more so as each day passed by, which necessitated their being put up to auction to the highest bidder. The actual cost to the Government for this wood was Rupees 779-1-5 at 12 Annas per cubic foot, so that the real loss has only been Rupees 147-5-0. The amount entered in column 3, Rupees 986-13-7, was made out by the addition of Rupees 4, the seigniorage to every bandy-load of twenty cubic feet. I must say that what was had for them was a respectable sum in comparison to the condition of the logs. The increase on the posts, as per column 5, Statement C., shows Rupees 71-0-4 by similarly adding the hitherto usual seigniorage of Rupees 6 per cart-load of twenty cubic feet; but what was actually paid by the department was Rupees 520-12-0, and a clear profit of Rupees 666-15-3.

37. In last year's account there was a balance, on 1st April 1873, of $1,038'\text{-}9\frac{5}{7}$ cubic feet Thumbah wood, 19,328 maunds red-sander roots and stumps, six posts or ten cubic feet first, and 866 posts or 1,443⅓ cubic feet second-class Pterocarpus santalinus posts. The addition as per Statement B, columns 3 and 4, by collection in 1873-74, Thumbah nil, red-sander roots and stumps 77,440 maunds, first-class red-sander posts, nil, and 583 posts or 971⅔ cubic feet second-class red-sander posts, making a total of $1,038\text{-}9\frac{5}{7}$ cubic feet Thumbah wood, 96,768 maunds dye-wood, six posts or ten cubic feet first, and 1,449 posts or 2,415 cubic feet second-class red-sander posts. The sales during the year 1873-74, Thumbah wood $1,038\text{-}9\frac{5}{7}$ cubic feet, as per paragraph 35, red-sander roots and stumps, nil, six posts, or ten cubic feet first, and 986 posts or 1,643⅓ cubic feet second-class red-sander posts, which being deducted from the total assumed by last year's stock and the present year's collection will leave a balance of stock on hand on the 1st April 1874 of 96,768 maunds red-wood roots and stumps valued at Rupees 11,497-8-0, and 463 posts or 771⅔ cubic feet second-class red-sander posts at Rupees 520-14-0, making a total of Rupees 12,018-6-0 as per Statement D, "Particulars of Balance."

38. In the year 1872-73, the sales from depôts amounted to Rupees 21,884-3-7, and in 1873-74 Rupees 1,819-11-3, being Rupees 20,064-8-4 less than 1872-73, the decrease being especially from not having sold the collection of red-wood roots and stumps during this year, which realized Rupees 17,920 in 1872-73. The red-sander posts also had no demand during this period.

39. *Confiscations.*—The amount realized by sales under this head has been Rupees 463-14-3. —*Vide* Statement A., Receipts, heading VII., and is Rupees 99-5-9 less than 1872-73.

40. *Elephant and other Cattle and Carts employed in the Forests and their Work.*—Fifteen carts were employed for removing from the forests the confiscated timbers at cost of Rupees

12-6-0, as per Statement A., Expenditure, A. Conservancy and Working, heading I., "3, Carriage of Confiscated Timbers."

41. In 1872-73 Rupees 17 was the cost against this head, being Rupees 4-10-0 in excess of the present year's expenditure.

42. *Free Felling.*—Statement F. shows the quantities taken free by ryots in each taluq for their *bonâ fide* agricultural, &c., purposes, and valued at Rupees 3,086.

43. The above has been taken from the account kept in each taluq by the Revenue authorities, on being issued with books, and they have all been for bandy-loads, no account being kept of removal by head-loads. Those villages nearer the hills and a distance from the Taluq Cutcherry evade obtaining the free passes, supplying themselves according to their wants, and have been known to subject themselves to having their wood confiscated when bringing without the necessary authority. Under all these circumstances, I think I will not be far out in my calculation, should I say that twice as much as is shown in the above statement has been taken by the ryots principally by head-loads in all the taluqs for which the statement has reference to. To obtain somewhat accurate estimate of what is really taken by head-loads, is a difficulty that cannot be overcome, as our establishment is too limited and situated so far apart; but if each village authority, I think, be empowered to issue free passes, keep an account, and submit them monthly, or quarterly, we may be able to come to a pretty fair conclusion on this head.

44. The valuation in 1872-73 for the timbers, &c., taken was Rupees 1,792-8-0, and is Rupees 1,293-8-0 below that of 1873-74.

45. *Outstanding Advances.*—Amounts to Rupees 2,000 advanced to Contractor engaged for fencing the Yerraguntakota and Codoor hill railway fuel reserves, *viz.*, Rupees 1,500 on the former and Rupees 500 on the latter, which it was impracticable to finish and measure up before the close of this official year, as the advance was only made towards the latter end of February 1874.

46. *Trespasses or Damages committed in the Nurseries, Plantations, or Forests and the results of criminal prosecutions.*—The results in cases have been out of twenty-one cases sixteen, or 76·4, and of seventy-one persons concerned and tried fifty-three, or 74·46 per cent. convictions obtained; but I do not mean to assert that this comprises the whole of the offences for breach of the Forest Rules, &c.; innumerable must be the instances in which detection has not ensued; but of those that that were taken on hand, shows a very fair average in convictions, ranging from a fine of 1 Rupee, to three months' rigorous imprisonment.

47. Cattle trespasses have been pretty frequent on the plantations; but as no damages were sustained they were in all cases impounded, and I am of opinion that the fines imposed under the Pound Act sufficed.

48. The annual fires still remain undisturbed, causing much loss to the young saplings especially, and the depredations by cowherds from all parts of the taluqs, and even the adjoining districts, by hewing down branches of trees and trees bodily, as fodder for their cattle during the hot or non-cultivating season, remaining penned up in the hills for months till the rains commence in the plains. By the employment of watchmen on all the railway fuel reserves, these fires have been prevented in them, and other trespasses also, which tended to the improvement of the trees and their young.

49. I cannot but refer to the restrictions contained in G.O., No. 2052, dated 20th December 1873, paragraph 2, with reference to forest prosecutions, which materially interferes with the obtaining of redress for breach of the Forest Rules. Wood-cutters and Odders of the district, *i.e.*, those resident in the villages belonging to, and adjacent to the forests, may in a measure delay their stay till the orders alluded to are received and prosecution ensues; but those coming from other districts and far-off villages will naturally evade the procedure by escape to their native places, and evidence lost by lapse of time. All professional wood-cutters chiefly come from the Nellore and North Arcot Districts, and to trace them after a time has been allowed to elapse will prove a matter of great difficulty, so that I would suggest a modification in the rule on this head.

SECTION IV.

Yield of Forests.

50. *Amount of Timbers, &c., &c., taken from the Forests during the Year.*

Timber.			Firewood.			Bamboos.			Charcoal.			Barks of Wood.			Palmyrah.			Red-Sander Roots and Stumps.			Red-Sander 1st-class Posts.			Red-Sander 2nd-class Posts.		
Departmentally.	On License.	Free.	Total.	Departmentally.	On License.	Free.	Total.	Departmentally.	On License.	Free.	Total.	Departmentally.	On License.	Free.	Total.	Departmentally.	On License.	Free.	Total.	Departmentally.	On License.	Free.	Total.	Departmentally.	On License.	Free.	Total.
,,	80,180 cubic feet.	27,200 cubic feet.	107,380 cubic feet.	,,	17,757 tons, 580 $\frac{5}{12}$ lbs.	734 tons, 1,840 lbs.	18,492 tons, 180 $\frac{5}{12}$ lbs.	,,	1,055 bandies, 642 Ass loads.	160 bandies.	1,215 bandies, 642 Ass loads.	,,	1,598 parahs.	,,	1,598 parahs.	,,	132 bandies.	,,	132 bandies.	,,	13¾ trees.	,,	13¾ trees.	77,440 maunds.	,,	,,	77,440 maunds.
,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,
,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,
971⅓ cubic feet.	,,	,,	971⅓ cubic feet.																								

51. The firewood in column 2 "On License" includes the quantity of fuel taken by the Railway Company, not from our reserves, but from the forests in general. The only difference in the system being that the Railway Company pay into the Government Treasuries Rupee 1 on every 1,000 lbs. supplied by the Contractor, whereas other merchants pay the prescribed seigniorage beforehand into a Treasury.

52. This section exhibits the thorough indent on our forests during the year, the quantity smuggled not being ascertainable.

SECTION V.

53. Financial Results.

Receipts.

				RS.	A.	P.
For the year 1873-74.—*Vide* Statement A.				52,657	1	8
Expenditure.						
A. Conservancy and Working.—*Vide* Statement A.			11,912 2 2			
B. Establishment.						
Heading I., Salaries	6,588 0 0					
,, II., Allowances	1,980 0 0					
,, III., Contingencies	106 12 6					
		8,674 12 6				
Expenditure on Ghooty Plantation, Bellary District.—Vide *Statement A.*						
VI. From 1st April 1873 to 31st March 1874	227 2 0					
,, Amount drawn in 1873-74 to recoup the permanent advance for expenditure incurred in the months of February and March 1873	75 13 0					
		302 15 0				
			20,889	13	8	
Net profit to Government				31,767	4	0
Balance of stock on hand on 1st April 1874.—*Vide* Statement D. ...				12,018	6	0
		Total ...		43,785	10	0

54. The sum of Rupees 3,086, being the valuation of free felling during the year, does not find a place in the above financial results.

55. My Budget Estimate for 1873-74 was as follows : Receipts Rupees 55,500, and expenditure under A. Conservancy and Working, Rupees 28,150, B. Establishment, headings I., II., and III., Rupees 9,160, making a total of Rupees 37,310. The revision as per G.O., No. 1356, dated 5th December 1873, *viz.*, Rupees 16,500, for A. Conservancy and Working, and Rupees 14,000, B. Establishment and Contingencies, amounting to Rupees 30,500 for both the Bellary and Cuddapah Districts. The actual receipt has been Rupees 52,657-1-8, or Rupees 2,842-14-4 less than was anticipated, attributed to, as I have already stated, to the non-sale of the stock of red-sander roots and stumps in my depôts. The actual expenditure for both the Cuddapah and Bellary Districts, Rupees 20,805-13-8, and is Rupees 16,504-2-4 below that of my, and Rupees 9,694-2-4 less than the Board's proposed estimate. The cause of decrease in expenditure has been owing to the curtailment of establishment on plantations, as per paragraphs 11 and 25, and the cheaper system introduced of ploughing and sowing broadcast, thus the surplus to Government credit of Rupees 31,767-4-0 instead of Rupees 18,190 as was anticipated by me in August 1872, when my Budget Estimate for this year was being prepared. There has been savings also under the head B. Establishment and Contingencies. The working charges only on the Ghooty plantation in the Bellary District has been incurred from sums drawn in the Cuddapah District.

56. Results of the previous year 1872-73 were as follow :—

Budget Estimate.		RS.	*Actuals.*		RS. A. P.
Receipts		50,000	Receipts		73,260 15 1
Conservancy and Working	15,000		Conservancy and Working	18,093 13 6	
Establishment, &c...	9,000		Establishment, &c....	8,651 14 10	
		24,000			26,745 12 4
		26,000			
Deduct Supplemental Estimate for working charges		5,000			
Total ...		21,000	Total ...		46,515 2 9

57. Had there been a demand, and I had sold my supply of dye wood, my revenue would have enhanced by about Rupees 20,000 more at least.

SECTION VI.

58. *General Remarks.*—I am also of opinion that, taking into consideration the present requirements of the railway, the existing reserves are not large enough. During this year the two tracts of 4,500 acres are being fenced in, called the Codoor Hill and Yerraguntakota railway fuel reserves ; the third tract Ballapalle No. 2 of 1,730 more acres will be commenced, and which are alluded to in Board's Proceedings, No 133, dated 27th January 1874, on sanction being granted for the expenditure under " A. Conservancy and Working, heading VI. (*a*) Reserve Tract Railway Fuel," and that plantations for railway fuel purposes will be a source of loss to the State compared with reserves, taking into consideration the nature of the soil and other difficulties we have to contend with in bringing these trees to maturity, which will be some very many years hence. The suggestion of ploughing and sowing broadcast with the Acacia Arabica seeds and other hardy indigenous plants are being taken on hand on all the plantations, in lieu of the more expensive system of sowing seeds in pits and trenches. The disappearance of all the low-land forests along the railway is very perceptible, being removed to the verge of the

both ranges of hills through which the line runs, and I would recommend the forests having a few years rest.

59. To reserve strictly the best forests would be attended with much difficulty arising from the privileges and immemorial rights of the agricultural population. It has taken years to finally succeed in procuring a few thousands of acres of jungles for fencing for Railway fuel purposes, and in addition, should we contemplate a further restriction to excluding cattle, &c., from timber reserves, I fear we shall never hear the end of the complaints by the ryots. The Shrotriemdars, who have demarcated forests and established their claims to hill forests, have commenced to work them in competition to our depôts, and have entirely prohibited ryots of other or Government villages adjacent to theirs, entering their jungles for grazing cattle, taking leaves for wet-fields, or for obtaining wood for agricultural implements though they have had such privileges from time immemorial. Up to the setting up of these claims by these Shrotriemdars, we have issued licenses for felling in these forests, and allowed all ryots (including those of the Shrotriemdars) to supply themselves with their agricultural requirements, and these claims rest on no title-deed from the Government. The Pymash accounts showing their boundaries even do not establish them, *i.e.*, the boundaries therein named, give the name of a particular hill on the east, another on the south, and so on ; but this cannot mean they have a right up to the heights or water-falls. We may say for a certainty that the claims alluded to first originated and asserted since the demarcation operations commenced on a fair field being opened for traffic in railway fuel, &c. In corroboration of the Government right to these forests, as above said, the issuing of licenses up to date, the revenue by giving out on contract, the collection of wax and honey in these disputed hills ; and the statement of very old inhabitants of adjacent villages in pointing out the limits, which is of frequent occurrence when crimes have been committed, ought to suffice.

60. These Inams not being Service Inams was granted to Polygars for the prevention of crime in ghauts and ghaut roads, and I think the ghauts and hills over which the latter have control were included in their Inams for this purpose, whereas the Inams to the Brahmins were for their subsistence, consequently only cultivable lands and low-land forests (fit for cultivation after being cleared) were intended for these claimants ; more especially as these endowments were granted at a time when forests were not considered such valuable property as they are nowadays with this vast consumption of railway fuel, and the easy transport of forest products, and timbers to the Presidency and other large towns, make them avariciously inclined for as much hill forests as they can possibly secure under the present Permanent Settlement.

61. The sum of Rupees 1,030 remains in my hands as a permanent advance on the 1st April 1874, being Rupees 1,000 on account of working charges, and Rupees 30 for contingent expenditure.

62. I am glad to be able to report that I have not had any complaints worth noticing against the Forest administration, with the exception of the people generally being much indisposed towards our securing portions of the forests, as railway fuel reserves, which they wish to make out, interferes with their grazing rights by curtailing the area ; but I disagree with them on this point from the fact of there being very ample space for their pasturage on the slopes and table-land of the hills, while our reserves occupy only a few thousand acres in comparison to their miles.

63. The free-pass system has been working more freely during the year under review ; nearly double the quantity of last has been taken during the present ; and I am of belief, as the method becomes more generally known, clandestine felling for such purposes will eventually give way, and the necessary legal authority obtained in all cases, in furtherance of which I would (and I have already done so separately) recommend other authorities, such as overseers, &c., being empowered to issue these passes on application, by ryots, during their tours and travels.

64. *Health and Conduct of Establishment.*—I have been ailing with fever and dysentery during the year with other slight attacks of fever at different times, and of short duration. My

overseer also has had some small important shocks of fever. Two of my tannah peons and one reserve watchaman died from severe attacks; and I must say this disease has been rather prevalent and varied in its description during 1873-74, though we have had pretty good falls of rain.

65. And I am happy to be able to bring to notice that all and every one of my subordinates and establishment have conducted themselves satisfactorily, even with the enhanced work of all kinds imposed on them. The office work has increased enormously after the new system of accounts was introduced, which I find very difficult to conduct with such regularity as is expected with one single writer, to assist whom I am obliged to engage the service of one of the Duffadars who understands English, and the necessity of supplementing the strength of my establishment seems very necessary, as was sugested in my revision list forwarded sometime ago.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) H. H. YARDE,
Deputy Conservator of Forests.

No. 160.

BELLARY, 29th May 1874.

From

H. SEWELL, Esq.,
Acting Collector of Bellary,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue.

I HAVE the honor to submit my report on the administration of the Forest Department during the official year 1873-74.

2. The only locality where the department has established itself is at Ghooty where a fuel plantation has existed since 1st May 1869 to meet the wants of the railway.

3. From the enclosed report of Deputy Conservator, it will be seen that 14,990 plants have been put down during the period under review. From the statement showing the cost, etc., of the plantation received from the same officer, and herewith forwarded, it appears that the plantation consists altogether of 64,600 plants.

4. The total expenditure on this plantation amounts to Rupees 563-2-0, of which only Rupees 336 have been debited to this district on account of the fixed establishment which comprises a head gardener on Rupees 10, and three gardeners at Rupees 6 each, making the expenditure Rupees 28 per mensem. The cost per tree is stated by the Deputy Conservator to be Annas 2-4.

5. The great want of this district is water; and to meet this want, seven wells have been cleared and deepened.

6. The plantation is still in its infancy, and no returns can be expected perhaps for some few years to come, owing to the extreme poverty of the soil and the scanty rainfall.

7. There are no sums remaining unadjusted in connection with the Forest Department in the accounts of this office.

ENCLOSURE No. 1.

DEPUTY CONSERVATOR'S OFFICE,
CODOORE, 17*th April* 1874.

No. 20.

From

MR. H. H. YARDE, Esq.,
Deputy Conservator of Forests,

To

H. SEWELL, Esq.,
Acting Collector and Conservator of Forests, Bellary.

I HAVE the honor to submit you the annual Administration Report of my range for the official year 1873-74, together with the necessary accompaniments.

SECTION I.

B.—*Inspection Tours of Range Officer.*—During the year under review, I continued in charge of this range, which comprises only the Ghooty Railway fuel plantation. I was unable to visit the plantation in the first month of the year (April 1873), owing to press of business with reference to the preparation of the administration report, annual accounts and returns for 1872-73, and other important works in the Cuddapah Forest Range. In the remainder of the months, viz., from May 1872 to March 1873, I visited the plantation eleven times, ranging over twenty-two days, at two days per inspection.

SECTION II.—RESERVES.

A.—*Reserved Forests.*—Nil.

B.—*Fuel Reserves.*—Nil.

C.—*Plantations, Ghooty Railway Fuel.*—The total number of plants supplied from the nursery during the year was 14,990, 4,640 being freshly transplanted out in the following species, viz., 2,300 *Melia Azadirachta*, 2,140 *Albizzia Lebbek*, and 200 *Bassia latifolia*; the remainder 10,350 casualties of different kinds replaced by 8,360 *Melia Azadirachta*, 1,020 *Albizzia Lebbek*, and 970 *Bassia latifolia*. The casualties that occurred during this period were 5,660, *Melia Azadirachta* 5,050, and 610 *Albizzia Lebbek*. 4,680 pits excavated, 49,600 plants watered, 1 acre of land cleared of brushwood and overgrowth, 80 acres land ploughed up and sown broad-cast with 224 measures *Acacia Arabica* seeds. Seven wells cleared, spaded, and deepened, 25,050 plants weeded and cleared a round, 124 measures seed collected, viz., 18 *Albizzia Lebbek* and 106 *Acacia Arabica*, besides 4,940 palmyra seeds. 5,420 palmyra seeds sown in pits that were excavated for the purpose, 157 nursery beds prepared and sown with the following kinds of seeds:—40 *Albizzia Lebbek*, 18 *Cananga odorata*, 13 *Cassia florida*, 84 *Melia Azadirachta*, and 2 *Bassia latifolia*. Besides the above described, other minor works were got through, such as the general up-keep of the nursery, by constant watering and weeding, repairing the fence wherever required, clearing the channelling of overgrowth of vegetable matter likely to impede the growth of the younger plants, etc.:—

	RS.	A.	P.
Plantation working charges, including pitting, rail charges, etc.	227	2	0
Fixed Establishment	336	0	0
*Total ..	563	2	0

Against the head of Fixed Establishment as per Statement A, Expenditure, A. Conservancy and Working, I. Salaries, Rupees 336, is exhibited at the rate of Rupees 28 per mensem for a head gardener at Rupees 10, and three under-gardeners at Rupees 6 each, drawn from the Ghooty Taluq Treasury; while the working charges in the same Statement "VI. Plantations," of Rupees 227-2-0, was drawn from the Pullempett Treasury in the the Cuddapah District and spent on this plantation.

In 1873-74 Rupees 725-10-0 less than 1872-73 was expended for working charges, while the "Fixed Establishment Expenditure" remains stationary at the same figure, viz., Rupees. 336. The decrease in expenditure has been owing to the curtailment in the employment of the hitherto number of coolies under contemplated change of operation, *i.e.*, from the more expensive method of trenching and pitting and sowing in them from nurseries to the easy and cheap mode of ploughing and sowing broad-cast.

The statement called for in Board's Proceedings, No. 133, dated 27th January 1874, is herewith appended.

Computing the established plants at about 62,000 with the total expenditure up to date we arrive at seven per rupee, or about Annas 2-4 per tree, but very many more thousands of late year's putting out, etc., arriving at maturity, or an age at which they may be brought on the category of established trees, will contribute much to lessen the cost per tree in after years.

SECTION III.

Forests worked under License and Voucher System.—Nil.

Timber supplied to D. P. W.—Nil as per Statement E.I.

Engine firewood.—Nil.

Timber firewood, bamboos, etc., removed by wood-cutters.—Nil as per Statement A., Receipts Heading II.

Quantity of timbers of all descriptions felled and stored in Depôt.—Nil as per Statement B.

Timbers of all descriptions sold to Merchants from Depôts, by tender or auction, and the quantity to be accounted for.—Nil as per Statement C.

Confiscations.—Nil.

Measures taken for extending and improving the forests.—Nil.

Elephants and other cattle and carts employed in the forests and their work.—Nil.

Free felling.—Nil as per Statement F.

Any valuable rare or new plants.—Nil.

Forest products.—Nil.

Outstanding advances.—None.

Trespasses or damages committed in the nurseries, plantations, or forests, and the results of criminal prosecutions.—Cattle have now and then made inroads into the plantation; but, as they had not caused damages more than trespassing, they were impounded, and the prescribed fees imposed, which, I am of opinion, proved sufficient punishment to the owners of the cattle.

SECTION IV.

Yield of forests.—Nil as per Statement E.

Stock of timber in Depôts at end of the year.—Nil as per Statement D.

SECTION V.

Financial results.—Nil, no revenue derived.

SECTION VI.

General Remarks.—The soil of this plantation is very poor more so than any of the plantations in the Cuddapah District even. In some portions are to be found a fair growth in the *Acacia Arabica* from broad-cast sowing, and in other places the *Melia Azadirachta*, and *Acacia Arabica* are showing tolerable growth in pits and channels. That portion of this tract, which is found to be much impregnated with soda, seem utterly useless for other than planting of palmyra seeds, and accordingly a good quantity of them have been put down. Other seeds and seedlings have been over and over tried; the former die away after germinating, and the latter shortly after being transplanted out; consequently sowing in pits and trenches will be adandoned to a great extent, and broad-cast sowing increased.

In the first quarter of the year there was one small shower of rain in April 1873, and a couple of unimportant ones in June, which, however, tended to revive the younger plants, though much disappointment was felt at having none in June, when the plants were commencing to look very bad, and the heat excessive.

In the first month of the second quarter the want of rain was much felt, and the casualties may be said to have occurred chiefly in it. The rains in August, scanty, came to the rescue; but it was not free from reports of casualties. September opened out with some drizzling showers, allowing us to some extent to proceed with ploughing operations and sowing of *Acacia Arabica* seeds broad-cast. They were not heavy and continuous enough to enable us to transplant from the nursery, where such was practicable according to the nature of the soil. They also were productive of much good to the younger plants in causing them to change their sickly appearance. The third quarter was all that could be expected. Nearly all the casualties that were reported during the hot months were replaced, and the *Acacia Arabica* seeds sown in previous months commenced to germinate. In November, taking advantage of the rains, plants were put

out from the nursery, and, being aided by the heavy dew at nights and cool days, the whole of the plants were looking cheerful and green; while December brought forth no rain, yet the season at that time of the year was such as not to change the good looks the plants had assumed in the other two months of the quarter.

In the fourth or last quarter, comprising January, February, and March 1874, we have not had a day's rain, even the early mango-shower entirely failed us. The want of water was, and is being, much felt, which, together with the excessive heat and dry winds, more especially in the last month, is telling very much on the health of all the plants. The springs in the wells are fast failing, though they are frequently deepened to support the younger plants by occasional watering and up-keep of the nursery. The healthy appearance they assumed in the foregoing quarter has been entirely lost. Rains at an early date only will save the plants greatly.

The established trees as already shown should at least have been trebled or doubled, if the casualties had not been so great in previous years, chiefly owing to the nature of the soil, the plants were dying away no sooner they were put out, and having had to be planted over and over made the cost increase, else the cost per tree would have only been one-half of that given.

The establishment have worked satisfactorily, and their health has not been much disturbed, though all have had some slight attacks of fever during the year.

No. 341.

KURNOOL,
2nd September 1874.

From

J. HOPE, Esq.,
Acting Collector of Kurnool,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue.

I have the honor to submit my annual report on the forest administration of the district for the Official year 1873-74, with the usual Statements.

2. *Section I., Inspection tours (a) of the Collector.*—I did not personally visit the forests in the course of the year, but, in the month of March, I made a tour by Atmakur to Nandial, and had thus an opportunity of inspecting some of the most important forest stations.

3. (*b*) *Of the Range Officer.*—Mr. Boileau was in charge for eleven months of the year, and was absent on privilege leave for one month from 9th October 1873. During the eleven months, he was in camp for 169 days, or an average of fifteen days per month. Considering that he suffered a good deal at different periods from fever, guinea-worm, and boils on the feet and legs, he must be allowed to have done a very creditable amount of travelling.

4. *II. Reserved tracts and contemplated operations.*—In my report for last year, I stated that all the forests between the Nandikanama and Yelgode ghauts, had been closed, with the exception of a small tract adjoining the Basavapuram station. This tract also, which forms one of the richest parts of the forests, was closed in August 1873, so as to secure complete conservancy in the reserved tracts. A small portion of the reserves adjoining the Velgode station were opened for three months from 7th March 1874, as directed in Board's Proceedings, Forest Miscellaneous No. 8-323, dated 19th January 1874, to enable the merchants of Velgode, to recover the advances they had previously made to the Wadders, for felling and carting wood from the forests. Another portion of the reserve near Bukkapuram, is opened to the public, but only for felling jungle-wood and stakes. These latter are very much in request in the neighbourhood, for Sugar-cane Plantations, etc., and, as it was found difficult to prevent them from being smuggled from the forests, it was thought better to allow them to be cut, on payment of seigniorage.

5. The area of the forests thus reserved is about 300 square miles, but I regret I am unable to furnish information regarding the number and description of the trees in it. Board's Proceedings, Forest No. 4-133, dated 27th January 1874, was received only on 3rd March, towards the close of the official year, and there was not sufficient time to collect any information on the subject. I shall, however, endeavor to obtain the necessary details, if possible, in the course of this year, and embody them in my next report.

6. *B., Fuel Reserves.*—There are no fuel reserves in this district, and, as remarked in my last report, it would appear that such reserves would not pay here.

7. *C., Plantations.*—The Statement called for in paragraph 21 of Board's Proceedings, Forest No. 4-133, dated 27th January 1874, is appended.

Names of Plantation.	Year in which formed.	Area.	Description of trees.	No. of trees.	Cost. During the year.	Cost. Up to the year.	Receipts. During the year.	Receipts. Up to the year.
					Rs. A. P.	Rs. A. P.		
1. Woncaram Training and Experimental Plantation.	1869-70	About 15 acres.	Mango ...	1,250	479 3 4	*1,411 9 8	* "Mr. Boileau" says 1,072-6-8, he has been called on to explain.	
			Redwood. .	140	.....	.... .		
			Somi ...	40	.....	.....		
			Billoo ...	14	.....	.....		
			Kanaga ...	6	.....	.....		
			Sambranie.	3	.....	.....		
2. Muttikonda Teak Plantation.	1866-67	½ acre.	Teak... ...	132	.....	52 12 0		

8. *I. Woncaram Plantation*—The expenditure on this plantation during the year was Rupees 479-3-4, against Rupees 315 last year. The increase was due to the coolies being paid for February and March 1873, in this official year. The Board would observe from the Statement, that the Redwood trees have decreased from 150 last year, to 140 the year under report, and the Somi trees from fifty to forty. The *largest Redwood tree* has not increased more than 2½ feet in height, or more than one inch in girth. In the Mango, there was an increase of 520 trees, the number at the end of the year being 1,250, against 730 in 1872-73. The largest tree increased from seven feet, to only eight feet in height. About 400 Mango plants were transplanted in 1872-73, and 550 in 1873-74, and in a total of nearly 1,000 trees, there were 425 casualties, or more than 42 per cent. of the whole number transplanted. Mr. Boileau attributes this large percentage to the inexperience of the gardeners, whom he describes as were "Village coolies." He says he planted twenty trees himself, and showed them how to do it, but still they could not do it properly themselves. These twenty trees planted by Mr. Boileau, are said to be in a "healthy condition, and some three times the size of those put out by the gardeners."

9. The total expenditure up to the end of 1873-74 was Rupees 1,890-13-10, which gives an average of more than Rupees 1¼ per tree on the total number (1,453) existing on the plantation, or more than Rupees 2 per tree, excluding the saplings remaining out of those transplanted in 1872-73 and 1873-74. It is clear, therefore, that, as stated in last year's report, the plantation is a failure, and any further expenditure on it would be a waste of money. The question of closing the plantation has been referred* by the Board for the opinion of the Inspector of Forests, and that officer has lately informed me that he must defer an expression of opinion, till he has had an opportunity of personally visiting the plantation.

* Paragraph 20 of Board's Proceedings, Forest No. 4-133, dated 27th January 1874.

10. *II. Muttikonda Plantation.*—There was no work performed during the year under review, and no expenditure was consequently incurred. The 132 Teak trees said to be on the

plantation last year, continued to live during the present year. The height of the largest tree increased from 15 to 21 feet, and the girth from 10 to 11 inches. One tree had a girth of 13 inches, and between 40 and 50 had a height of 18 feet, the average height of all the trees being 12 feet.

11. *Nandial Nursery.*—This was maintained from the Local Funds, and placed under the Forest Assistant, owing to its vicinity to his bungalow. The nursery was closed in June 1874, and the trees that were left after thinning, are being allowed to grow into a tope.

12. *Section III., Voucher and License System.*—The receipts realized from seigniorage on licenses, amounted to Rupees 29,496-0-11 against Rupees 29,490-14-0 last year. Of these Rupees 23,113 were levied on 10,113½ bandy loads of timber, against Rupees 24,587 the previous year. This small decrease is due to the closing of the Basavapuram Forests (one of our best paying tracts) from August 1873. The whole of the reserved tracts, too, were open during 1872-73, for five months up to September 1872, while, in 1873-74, only a small portion of it near Velgode, was opened from 7th to 31st March 1874, under the Board's Proceedings, quoted in paragraph 4. To prevent a further decrease in the revenue, consequent on the closing of the Velgode forests, a new station was opened at Nallakalava, and licenses granted for felling timber in the forests adjoining.

13. Seven thousand eight hundred and twenty-seven, and a half bandy loads of Bamboos at 5 Annas, and 6,167 bullock and donkey-loads at 2 Annas, were also cut, at a seigniorage of Rupees 3,216-15-6. The receipts last year were Rupees 3,230-15-6. Thirty-five thousand five hundred and eighty-seven and eleven-twelfths cavadi loads of Charcoal were removed for Rupees 2,224-3-11. The amount last year was Rupees 1,616-11-6. One hundred and twenty bandy-loads and eighty-two head-loads of Firewood were taken for Rupees 96-13-6. Last year, the sum collected was Rupees 55-11-0. There was thus an increase under firewood, though the seigniorage on bandy-loads was reduced from 1 Rupee to 4 Annas, and head and bullock and donkey-loads allowed to be cut free, under G. O., No. 1,225, dated 31st October 1873. A seigniorage of Rupees 45 was also levied on fifteen bandy-loads of Bark at 3 Rupees per load. There were no receipts under this head last year, and I can find no orders of Government authorizing the levy of seigniorage on this article. Mr. Boileau, however, states that seigniorage is being charged from the commencement of Forest conservancy, and Major Beddome informed me last year that the same is the practice in other districts, though he admitted that there are no specific orders of Government on the subject. This question will be referred for orders, in a separate communication.

14. *Section IV., Yield of Forests.*—The annexed Statement shows the total yield of forests during the year.

Name of Range.	Timber						Bamboos.			Charcoal.	Forest produce bark.
		On license.			Free.		On license.		Free.	On license.	On license.
	Departmentally.	Reserved and Jungle wood.	Firewood.		Timber.	Firewood.	Number of bandies.	Number of bullock or donkey-loads.	Number of bandies.	Number of cavadi-loads.	Number of bandies.
			Number of cubic feet.	Number of head-loads.							
	c. ft.	c. ft.			c. ft.	c. ft.					
Kurnool	1,206	202,270	2,400	82	29,020	375,700	7,827½	6,167	99	35,587 11/12	15

15. (1) *On License.*—The details are given in Statement E.

16. (2) *Departmentally.*—Statement B. shows that 613 feet 1 inch of Inamaddi and 241 feet 7 inches of Yepi logs, valued at 15 Annas per cubic foot, at Rupees 801-4-0, were felled on the Cumbum side during 1873-74. This, added to 486 feet 3 inches* of Inamaddi, valued at Rupees 486-4-0, in depôt at the beginning of the year, makes a total of 1,340 feet 11 inches valued at Rupees 1,287-8-0. Of this, the whole of the old stock was sold for Rupees 258-2-0, at a loss of Rupees 228-2-0. Most of it was damaged from having been kept long in the depôt unsold, and only a few cubic feet could be sold, for their value, viz., Rupee 1 per cubic foot. The price of the rest had to be reduced to Annas 8 per cubic foot to induce any one to buy them, the reduction to Annas 12 having been tried without any effect. Of the new stock, the whole of the Yepi logs and 478 feet 2 inches of the Inamaddi were sold at their actual value, viz., Rupees 674-12-3. The balance† at the end of the year was thus 134 feet 11 inches of Inamaddi logs valued at Rupees 126-7-9. The total amount realized by sales was Rs. 932-14-3, against Rupees 418-2-4 last year. Of this, Rupees 810-6-11 worth was sold in the Cumbum Depôt, and Rupees 122-7-4 worth at Nandial. There were no sales from depôt opened last year at Kurnool.

* Statement D.

† Statement D.

17. *Wood supplied to the Department Public Works.*—There was no wood supplied to the Department of Public Works during the year under report.

18. *Free felling.*—Twenty-nine thousand and twenty cubic feet or 1,451 bandy-loads of timber, 3,75,700 cubic feet or 18,785 bandy-loads of firewood, and ninety-nine bandy-loads of bamboos were removed free from the Kurnool Forests.

19. *Section V., Financial Results.*—The total receipts from all sources amounted to Rupees 31,854-1-7 against Rupees 31,011-12-7 last year. The increase was chiefly in depôt sales of timber, and sales of confiscated wood. The expenditure amounted to Rupees 11,315-10-5, showing an increase of Rupees 3,229-1-10‡ over last year. The increase of Rupees 1,408-14-10 was due to an increase of Rupees 2,388-12-2 under the heads noted in the margin, and a decrease of Rupees 979-13-4 under Communications and Buildings, etc., and collection of seeds. The increase of Rupees 1,500 under "Rent of leased forests" is due to the purchase of Achayya's forest lands for that sum, under Board's Proceedings, No. (Forests), 49-1,745, dated 5th September 1873. The increase under "Timber expenses" is due to the increase in departmental §, felling, and in confiscated timber. The increased expenditure for plantations has been explained in paragraph 8. The decrease under "Communications and Buildings, &c.," does not call for remark.

	Rs.	A.	P.
‡ Working expenses	1,408	14	10
Establishment	1,820	3	0
Total ...	3,229	1	10

	Rs.	A.	P.
Rent of leased forests	1,500	0	0
Timber expenses	749	6	10
Plantations	139	5	4
Total ...	2,388	12	2

	Quarterly felled.
§ 1872-73	Nil.
1873-74	854 feet 8 inches.

20. The increase of Rupees 1,820-3-0 under Establishment is chiefly due to Mr. Boileau's temporary promotion to a Deputy Conservatorship, and the increased pay and allowances* he received.

	Pay. Rs.	A.	P.	*Allowances.* Rs.	A.	P.	*Total.* Rs.	A.	P.
* 1872-73...	1,427	11	3	1,056	0	0	2,483	11	3
1873-74...	2,676	12	5	1,450	13	5	4,127	9	10
Increase...	1,249	1	2	394	13	5	1,643	14	7

21. *Section VI., General remarks, Free Pass System.*—Mr. Boileau is of opinion that this system works very badly, and that much wood is cut free without these free passes, so that the figures shown in the Accounts are much below the actual quantity felled. This he supports by stating that only half the villages in the five taluqs bordering on the Nallamalas show any

firewood cut on free passes, and that a large proportion of these villages have cut under ten bandies only. Mr. Boileau does not attempt to prove in what way, or to what extent, the privilege has been abused. The fact that some villages take out fewer licenses than others can, of itself, be no proof that the system has been working badly. In the taluqs of Ramalkota and Pattikonda, which are traversed by the Yerramala Hills, many of the villages on the western or regur portions, do not take out any licenses at all for firewood, because of the trouble and expense of bringing it, and, as a matter of fact, the ryots generally use cowdung, cholum, and cotton stalks, etc., as substitutes for fuel (*vide* Mr. Chase's letter, No. 58, dated 1st March 1871). Mr. Boileau has evidently overlooked this important consideration, when trying to condemn the free pass system as a whole; and until specific instances are brought to light, in which wood brought on free passes may be found to have been misappropriated for sale to the public, I do not think the existing arrangements should be disturbed.

22. Ninety-nine cases, with 274 persons were prosecuted during the year, of whom 141 persons in fifty-three cases were convicted, and the rest acquitted or discharged.

23. The health of the forest officers and peons this year is reported to have been better than last year, with the exception of Mr. Boileau, as stated in paragraph 3.

I have the honor to be,
Sir,
Your most obedient Servant,
(Signed) J. HOPE,
Acting Collector.

ENCLOSURE No. 1.

DEPUTY CONSERVATOR'S OFFICE,
NANDIAL, *5th May* 1874.

From

E. H. BOILEAU, Esq.,
Forest Assistant.

To

J. HOPE, Esq.,
Collector of Kurnool.

SIR,—I HAVE the honor to forward my Administration Report for the official year 1873-74.

SECTION I.

Inspection tours of the officer in charge.—During the eleven months I was in charge I have been in camp for 169 days, an average of fifteen days per mensem, while in the previous year I was 204 days travelling, showing an average monthly of seventeen days. I have been unfortunate this year in getting guinea-worm, boils on my feet and legs, and also fever; but in 1872-73 I only had fever, a man with fever can travel, while one who has any thing the matter with his feet cannot well do so.

SECTION II.

Reserved Forests and contemplated operations.—(A) The Basavapuram Station was closed in August, as it formed part of the "Reserve;" this was our principal station, not only did it yield the largest revenue, but has some of the finest forests in the Nallamalas. I have seen a tope of nearly entirely Nullamuddi trees of about ten square miles or more; as in this plateau so in others the finest and largest trees are to be met with; those on the sides of hills are generally poor, this is on account of the hills being rocky and covered all over on some hills with large round stones.

I have also noticed that in places where the bamboo thrives, trees are few and far between ; but when a tree is discovered, it will, in nearly all cases, be found to be of an immense size. Junglewood stakes are allowed now to be felled in the Bukkapuram jungles, although forming a part of the "reserved" tract. This was much required, as the ryots did not mind being prosecuted for theft as long as their Sugar Plantations were safe. In some places they use bamboos for stakes : but those about this station are very thin, and so were quite useless. Achayya's durkhasts were sold to the Forest Department in September, a purchase which ought to have been effected long ago ; this should be followed with the purchase of *all* durkhasts that issue chitties for wood other than firewood, and an order be issued that no new puttas be given to ryots or others on any condition. The Yelgode Station has been reopened for three months to allow the merchants to get back their advances to the Wadders ; it will be closed again on the 7th May 1874. The Kistamchettipally Station was opened in February of this year as it was not in the "reserves."

(B.) Plantations.—Woncaram Plantation the soil of some parts of this plantation are extremely poor, composed of a whitish clay, impregnated with salt ; the remaining portion is good. The trees planted on the former are extremely small, especially the Redwood which either seem to die off or won't grow. Those on the latter are in good health. In 1873 I had about 550 young Mango plants put out into pits. The largest Redwood tree is about 12 feet high, and with a girth of about 8 inches. The largest Mango is 8 feet and odd inches. I have also a few Somi, Kanaga, Billoo, and Sambranie. The expenditure has been *Rupees* 479-3-4, or *Rupees* 164-3-4 more than of last year. This extra amount is caused by my paying the gardeners (5) and coolies (8) for work done during February and March in April, and coolies who were employed in assisting the gardeners, no coolies were engaged this hot weather, as the 500 Rupees allotted would not have covered expenses. The number of trees in the plantation are as follows :—

140	Redwood trees	10 Casualties.
6	Kanaga	...
14	Billoo	1 Casualty.
40	Somi	10 Casualties.
3	Sambranie...	...
1,250	Mango	425 do. about.

During the rainy season I had about 550 Mango planted out, the year before about 400 to 500 (this was not included in the 730), say a total of 1,000 plants, out of which one-third have succumbed to the hot weather. The gardeners are to blame, for it is to their carelessness only that I attribute this high percentage. The way in which they transplant young trees is most slovenly, although I planted out twenty trees myself and showed them how to do it. By the way, the trees which I transplanted are all in a healthy condition, and some three times the size of the ones put out by the gardeners. In the first place the so-called gardeners are simply village coolies of Erinapadu, so they know nothing of gardening, although they can dig, water, and other such works which do not require training or experience.

Muttikonda.—This plantation has the same number of trees in it as last year, 132. The largest is 21 feet and odd inches, with a girth of 11 inches, but one tree had a girth of 13 inches. About forty to fifty trees were over 18 feet ; the general average being 12 feet. I should say expenditure, *nil.*

Nandial Nursery.—This plantation is in very good order now ; the buffaloes and other cattle are a constant nuisance, for in the hot weather they eat and break down the trees. This year it is not so bad as last hot season, because I have been pounding them every day. In April and May 1873 there was not a young tree left, but they sprouted up when the rains commenced, and are very fine-grown and healthy plants. In 1873 I had about 150 plants put out, and these plants are all alive in consequence of my being present when transplanting was going on, which I could not manage to do when transplanting was going on at Woncaram, it being twelve miles away from head-quarters. No plants have been given out to ryots, etc., and the Nursery is to be turned into a tope, the best thing that could be done with it, for it is situated at the junction of two roads (which are

much used), and on market day at Nandial I should say at least 400 people come past the tope, the Koondair river running at the foot of the Nursery induces them to stop either to eat their food, wash, or have a chat. Before it can be turned into a tope, the trees must be thinned, and old and new nursery beds dug up; and this I hope to see done before the rains commence. All expenses are paid from the Local Funds.

C.—Fuel Reserves, etc., etc.—None.

SECTION III.

Voucher and License system.—The number of bandies taken out of these forests will be seen by looking over Form E, (yearly). For this district this system undoubtedly works better than departmental felling. Firstly, because the rates asked for by contractors are high (there being no competition); secondly, if we fell for the Department of Public Works, the natives will not take the timber, for the latter prefer fresh wood. I don't mean *green*, but beams that seem to be seasoned outside, that is, after they have been felled for three or four months. The wood merchants know this, and never keep wood on hand for any length of time preferring to sell the wood at a small profit in place of no profit and sometimes for what they can get, this enables them to keep up their stock, with *no bonâ fide seasoned wood.* If felling departmentally is to be extended in this district, I should recommend felling for the native purchasers, as they buy more steadily; though each buys in small quantities yet the total amount will be large. But on the other hand the Department of Public Works buy a large quantity at long intervals; which is not so paying as the former method, and depôts should be placed at strategical points, (and not at the head-quarters of the Forest Officers,) such as Dupad on the border of the Guntoor District, on an old Government road or at Markapur; these places are chosen because bandies cannot cross the Vella condahs to the south. The former place is large, and has an annual fair; I believe the latter is also large, and people are always coming to the Cutcherry, besides which, it is on the border of the Nellore District. Wherever the depôts are placed, one thing must be borne in mind and that is that only wood which is required should be felled (the dimensions, and description of timber can be discovered by following the size, etc., cut by wood merchants. For instance, Inamaddi beams should be 15 feet × 9 inches × 9 inches or 12 feet × 9 inches × 6 inches, or 12 feet × 6 inches × 6 inches and not the large size which were felled before in 1867-68. People are not allowed to fell Inamaddi bandy poles because they break Rule VI. by so doing, hence we ought to supply the demand by felling departmentally, the same with Tunki and Red Saunder pounders, etc., etc. In this way felling departmentally would work well; but in other cases such as felling bamboos, firewood, or junglewood posts, rafters, etc., the system now in vogue must be adhered to. The rivers though few might be made very useful for floating, viz., Bowanassy, Carli, Vakeelair, Parlair and Goondlacumma. The Tumpalair would not do as I hear, it has three anicuts across it. Also the irrigation canal for floating to Cuddapah, the current is too strong for rafting up stream, the number of coolies which would be required for towing would be great, and therefore it would be ruinously expensive, while down stream a man or two to guide the raft would be all that is wanted.

SECTION IV.

Yield of Forests and Expenditure.—The expenditure of the year has been Rupees 2,909-14-10 or Rupees 1,408-14-10 more than that of last year. This increase is easily accounted for—first the purchase of Achayya's land in the forest, viz., for 1,500 Rupees; secondly, a timber shed was built for the Cumbum Depôt for a few rupees short of 100, this is constructed of almost entirely of Palmyra; thirdly and lastly, sixty-six Inamaddi and twenty-six Yegi beams were felled and carted to depôt for 642 Rupees, the remainder under Head I. is for conveyance of confiscated wood *Rupees* 169-1-6, for stacking Rupees 9-8-0, total *Rupees* 819-9-6. These ninety-two logs are all sold except thirteen on hand. Only fifteen bandies of bark were taken out of the forests, of course the items of forest produce are very numerous, but the rights of the Chensuars must be looked after, these poor people in the hot weather have a precarious living, as they are not able to collect the root they subsist on in the rainy and cold season, therefore they are obliged to live on fruit, and by barter with the

merchants, in which they are most fearfully imposed upon. It is only where there is a large village of Chensuars that they manage to collect the fruit, honey, etc., without hindrance or interference from the villagers, where there are only five or six huts, they live on the fruit they collect daily, the villagers taking the forest produce for sale or exchange for grain.

SECTION V.

Financial Results.—The revenue is Rupees 31,854-1-7, or Rupees 842-5-0 more than that of 1872-73. I have already compared the two years in a separate Account, and forwarded the same, so need only remark on the separate items. No wood has been supplied to the Department of Public Works or other departments; last year there were receipts for 247-0-8 Rupees. Under Head I. an addition of 611-12-7 Rupees worth of wood was sold; but this needs a little explaining. Out of this extra amount 206-15-4 Rupees must be deducted as it was not a real transaction, it is the value of thirty-nine Inamaddi logs at 8 Annas a cubic foot. In 1871-72 they were reduced to 1 Rupee again, as there were only one or two sold, they were again reduced to 12 Annas per cubic foot; not finding purchasers at this rate I was perforced to reduce it *again* to Annas 8 when they were brought up on speculation by two enterprising Mussulmen, *i.e.*, the Nandial man bought up those (16) at Nandial, and those (23) at Cumbum by the Cumbum man. Some of them were very rotten, others were weather beaten, and white-ants were attacking them. The above reductions were made with the consent of the Conservator of the Kurnool Forests. The logs were too large for native houses, and if they had been reduced three years ago to 12 Annas they would have been sold, and not resulted in so much loss as now. Head II. is only 5 Rupees more this year, and I don't expect it ever to rise above 30,000 Rupees as our "reserves" since my taking over charge have been closed completely and are not so nominally as previously. Head IV. is rent of my bungalow for the official year. Heads VII. and IX. relate to the sales by auction, the former for the two-thirds of the amount paid for confiscated and waif timber, the latter for unclaimed deposits. They amount respectively to Rupees 1,229-12-7 and Rupees 114-14-8, showing an increase of Rupees 430-12-2. The increase of receipts may be put down to the purchase of Achayya's durkhast in September 1873, together with the opening of the Yelgode forests from 7th of February 1874, for three months to let them regain the advances they had made to Wadders; but on the other hand our best station, Basavapuram, has been closed for eight months out of the twelve. It may fairly be said that the revenue is up to the mark, although the balance in favor of Government is not so much as the previous year; yet it must not be forgotten that the expenditure has been unavoidedly higher, hence the deficiency.

This should be shown under IX. Miscellaneous.

SECTION VI.

General Remarks.—I have this year introduced the system of making my peons go monthly or weekly tours of the villages surrounding their tannah stations, and every village must be visited at least once a month, each peon has a list of the villages to be inspected. This, I think, has had a good effect in stopping smuggling a good deal, because the peon by inspecting the surrounding villages, checks the other roads leading from the forests, which do not come near the station, (therefore used by unscrupulous parties) and besides *nearly all* my peons are illiterate, and consequently are *quite* useless in checking licenses which come to the station for passing, as they put their mark to the license and voucher not knowing what they are signing, so this work is usually performed by the village authorities (as it always has been) but the services of the peon are now utilized, but if they were literate our receipts *must* obviously rise very considerably; for instance if a peon goes to inspect the forests, he comes upon a bandy of wood, the men often show an old license, the peon, not being able to read, passes the bandy; while if he could read and write, the bandy would or ought to have been confiscated. The number of cases up to the 20th of January 1874 were 100, no prosecutions have taken place since that date. The peons have, on the whole, behaved well with the exception of two; one was dismissed for falsifying his diary and going to his village without leave, the other was suspended for three months for

drunkenness on three occasions, the second time he was fined. Health of peons have been better than usual, although several were on leave for several months at a stretch, one peon went on leave on account of bad fever and has never returned, so struck his name off the list as I suppose he succumbed to it, otherwise he would have written for an extension. Four or five peons suffered from guinea-worm, also one duffadar, this man also came in for a good bout of fever, one duffadar was at the head-quarters of the Overseer acting as Gumasta for the whole year. The Overseer and clerks have been all right, with now and then slight attacks of fever. The feelings of the people I don't know much about, but this I know that, if the Reddy of a village sets a bad example (and I know several) by stealing timber, all the villages around take wood without a license on every possible occasion. From what I have been informed, we only get about half of the *bonâ fide* revenue, the remainder is taken off clandestinely; but to prevent this the number of peons and other subordinates required would be enormous, and the pay of Establishment and Working charges, etc., would leave little room for profit. I, therefore, recommend that ALL *canal bridges** be guarded; the village authorities† and other Government servants being ordered to check all bandies (when possible); also more stations are required to guard the numerous roads leading from the forests along which stolen wood is conveyed generally on moonlight nights. The working season generally commences from the end of November and work increases to middle of April, when it falls again until the middle of June or commencement of the monsoon, during the rains the receipts are very small. Another way that smuggling could be finally stopped would be to bring out a Forest Act, *this must be done*, or else the forests have very poor chances of being conserved in a thorough manner. When prosecutions are instituted the fines rarely exceed 5 Rupees, and in the case of imprisonment, two days; but this is optional, as the defendants are allowed to pay a fine. The only cases where they are not fined are those which come before the village Magistrates whose sentence by the bye is usually *two hours* imprisonment,‡ mind you, TWO HOURS !! How can it possibly be expected of us to hinder smuggling when *such* a sentence is passed, the prisoner naturally thinks it a grand lark, and of *course* will not renew his thieving propensities. Granted that *all* Government servants (within, say, twenty miles of the forests) are ordered to check bandies (especially the police, taliaries, and taluq peons); also obnoxious durkhasts are brought up; and, lastly, (but not least), that a Forest Act is brought out, then not only will smuggling be effectually done away with, but the receipts will rise, and conservancy will follow as a matter of course. Let the first 100 men I catch conveying away wood without a pass be sentenced to a month's imprisonment each, and see what an effect it will have on smuggling. The option of paying fines must be stopped if possible. The only ones who can stop smuggling at present are the Tahsildars and the village authorities whose villages are on unguarded Forest roads where no station is. The former by not being so lenient in their sentences and by ordering village authorities whose villages border on the forests to help us instead of assisting the smugglers. The latter by checking every bandy (free or tax) and confiscating *all* without license, and not releasing them on payment of a couple of annas, or so adding by the way "The Konda Dhora ordered us to pass bandies." The system of giving free passes to ryots I don't think works well, as a number of the ryots cut without a pass, and bring the "reserved" woods all mixed up with firewood, the favorite "reserved" timbers brought are Billoo, Chirimon, and Inamalli. The fault lies as much with the village authorities as with the ryots if the wood is cut without a free pass, the village Magistrate says the ryots have not asked for a pass, while the ryots say they asked for one but were themselves asked for a present. That is to say the charge for a bandy of firewood is 4 Annas, but together with this the station village authorities take their little fee of 2 Annas to 4 Annas. The former (if not given) refuses to grant a free pass so the ryot either steals the firewood and risks confiscation, or goes without wood. The latter if the fee is not forthcoming refuses to pass the wood so the bandy is confiscated from being brought after time has expired. Another reason for my saying the free

* As all roads meet before the bridges have been reached.

† Of the villages close to the bridges.

‡ In the village chavadi.

pass system works badly is, that the ryots will not have their bandies or passes checked at the station; consequently, if so inclined, they go to the forests several times on the same license on roads not leading to stations, and on the pass bring posts, bandy poles, etc., etc., and also bring *all* woods indiscriminately viz. Inamaddi, etc., etc. Several village authorities have told me that not one half of the firewood bandies have passes, and out of the ones that have passes, few come to the station for checking purposes. As instances take Wonalla, Yerraguntla and Valepanoor and other villages innumerable which have not come to my notice. Besides all take firewood free, (whether a ryot or not) and also wood for burnt houses, cultivation wood is useless for one who is not a ryot unless he takes it for sale. And what I say is that it is impossible to tell whether it is for a ryot or any one else. If the system works well why do so many firewood bandies have no licenses. The Government (are supposed to(?)) give the wood free, then why not take advantage of this privilege and have all bandies of firewood covered by *free* passes. At present at our stations we have Firewood Enter books, but as our stations are unfortunately far apart, I should recommend books for passing firewood bandies be given to all village authorities whose villages border on the Nallamalas, and which are on unguarded forest roads, and where stations are a very long distance from each other certain well chosen villages should be made stations for passing bandies of timber, bamboos, etc., the forest peon then would be ordered to inspect the station once a week to see that the Account books are kept up regularly daily, and have the bandies, and the amount of timber on each bandy correctly entered. Auction sales have been held in sixty-six villages, the particulars are as follows :—

			Rs.	A.	P.
Deputy Conservator	42	817	13	0
Overseer	19	365	6	11
Duffadars	5	21	14	0
Total ...	66	1,205	1	11

I am unable to compare the bandies on free passes of this and the previous year as the Accounts have not been received as yet. But should say the amount of cubic feet will be about 5,00,000, last year it was more than 3,50,000 for firewood bandies only. In some taluqs there are only a few bandies given, for instance Koilkuntla out of about ninety villages only three village authorities issued licenses. I ask, how did the others obtain their yearly supply of firewood ? These three villages issued for the Yerramalas, and this accounts for the number of Koilkuntla Taluq villagers cutting without license in the Nallamalas, this is prohibited as they ought to obtain their supply from the Yerramalas. But the former being denser and better forests, it saves time and money to come to them for their firewood, with comparatively speaking no risk of confiscation; as the roads are so numerous that they are able either to go to or past the stations as it pleases them. I am sorry the Free Pass Accounts have not arrived, as I should have liked to have compared them in detail, but when they do come, I will forward them with a letter, in which I hope I shall be able to compare and explain them at some length in detail. I am herewith sending you an account of the amount and number of villages in which auction sales have been held, the amounts refer to the total sums realized, and not, only that credited to Government. The remainder due for auction sales was sold by the Tahsildars. Trusting that my report is of a proper length.

I have the honor to be,
Sir,
Your most obedient servant.

(Signed) E. H. BOILEAU,
Acting Conservator of Forests.

(True Copy.)

(Signed) J. HOPE,
Acting Collector.

No. 499.

NORTH ARCOT,
COLLECTOR'S CIRCUIT OFFICE,
PALMANAIR, *26th September* 1874.

From

W. S. WHITESIDE, ESQ.,
Collector of North Arcot;

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras,

SIR,—I have the honor to submit, herewith, a report on the administration of the Forests in this district for the official year 1873-74, received from Mr. Sheffield, the Deputy-Conservator of Forests.

2. The Forest Officer has visited the several forests and plantations under his charge several times during the year; the number of times he visited each being entered in Section I. of his report.

3. Up to the end of the past official year there were no reserved forests in this district, but one has since been formed, as the Board are aware, on the Tripatti Hill exclusive of the tract assigned to the Pagoda.

4. Of the two Railway fuel reserves—Mamandoor four square miles, and Amboor six square miles—the latter has, as the Board are already aware, been ordered by Government to be abandoned. The subject has since been submitted for the reconsideration of Government, and their final orders are awaited. There have been hitherto no receipts from the reserves, and the Deputy-Conservator says that some years must necessarily elapse before any can be expected.

5. The expenditure on these reserves during the year was Rupees 181-3-0 and Rupees 19-2-6, respectively, the total expenditure up to the year being Rupees 2,323-10-11 and Rupees 222-10-6. The small expenditure of Rupees 19-2-6, as just shown on the Amboor Reserve, was incurred in altering the situation of the boundary stones.

6. The number of railway fuel plantations in the district remains the same as in the preceding year, viz., nine inclusive of the experimental plantation at Ammundy. The plantation at Ammundy has, however, been extended. It now covers an area of about 160 acres, while in the preceding year it measured 60 acres only. The total extent of these plantations is now about 1,345 acres, and the number of trees in them, which are chiefly Casuarinas, may be reckoned in round numbers at 470,000.

7. The receipts during the year were Rupees 600, and the expenditure Rupees 5,568-4-4. There were scarcely any receipts from these plantations up to the preceding year, but the large sum of Rupees 25,897-1-11 has been spent on them up to date.

8. The total receipts from the forests in charge of the Deputy-Conservator of Forests amounted to Rupees 16,844-15-8. The greater portion of this amount, Rupees 13,341-5-6, was realized by the sale of timbers on the license system, while the amount realized by the sale of timber, &c., removed by Government Agency, amounted only to Rupees 2,178-8-0. The sale of forest produce realized Rupees 515-12-6, of confiscated timber Rupees 294-5-5, and of timber supplied to the Public Works Department Rupees 509-6-0. The miscellaneous receipts were Rupees 5-10-3.

9. The expenditure amounted to Rupees 18,179-2-11, of which Rupees 7,961-10-0 appertain to conservancy and working charges of establishment.

10. The value of timber on hand on the 31st March 1874 was Rupees 2,836-4-0, a sum which is Rupees 1,742-4-0 in excess of the value of timber on hand on 31st March 1873 according

to present valuation. The balance therefore in favor of the North Arcot Forests is Rupees 408-0-9. The value of timber felled by Departmental Agency during the year was Rupees 2,987-8-0, and that sold to the Public and the Department of Public Works, Rupees 2,687-14-0.

11. The forests and jungles in this district would be in a more satisfactory footing were the recommendations contained in my letter of the 23rd July last, No. 386, sanctioned at an early date.

12. Mr. Sheffield, the Deputy-Conservator of Forests, is a very zealous and energetic officer, and my acknowledgments are due to him for the praiseworthy manner in which he conducted his duties during the year under review. I have also pleasure in mentioning very favorably the services rendered by Mr. Forester Newman during the year under review. He has done his work very well and deserves promotion.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) W. S. WHITESIDE,
Collector.

ENCLOSURE 1.

OFFICE OF THE DEPUTY CONSERVATOR OF FORESTS,
NORTH ARCOT, KURCUMBADI, *9th April* 1874.

From

MR. T. SHEFFIELD,
Deputy-Conservator of Forests, North Arcot,

To

W. S. WHITESIDE, ESQ.,
Collector of North Arcot.

SIR,—I have the honor to submit the Administration Report on the North Arcot Forests for the year 1873-74.

SECTION I.

INSPECTION TOURS OF THE OFFICER IN CHARGE.

I have been in charge the whole of the year and have inspected the Forests of Vellore, Poloor, and Chendragherry several times. I have monthly visited the whole of the plantations once and many twice; have inspected the Mamandoor Reserve seven times, and have visited the Palmanair Plantations five times, and Venkataghirikota Plantations twice on special duty for opening plantations at those places for the Jungle Conservancy Department, having been absent altogether from Head-quarters 180 days.

SECTION II.

RESERVES.

A. Reserved Forests.—None strictly speaking, but we do all we can to restrict the felling as much as possible to the common timbers, leaving the reserved timbers for departmental felling and on license on special application; but I hope in a short time entirely to put a stop to the issue of licenses for the reserved woods.

B. Fuel Reserves.—Mamandoor Reserve.—I am glad to report that this reserve continues to improve, and will, I feel sure, give a good return in a few years for the money spent on it. The

young Red-wood still grows vigorously, and all the other trees show an equally favorable rate of growth. It is at present impossible to estimate the production per acre with any thing like accuracy on account of the unequally covered nature of the reserve, and I think we shall have to wait for felling to take place before we can know with certainty the yield.

Amboor Reserve.—We are still waiting the final orders of Government, before again starting work on this reserve. It is, as I have already reported, simply impossible to get a block of jungle, free of all private rights, in place of this which it is proposed to give up, because the villagers claim rights to pasturage, leaves, timber, &c.; for every piece of jungle in the district near the line has the same rights and privileges. We must therefore entirely give up all thoughts of a fuel reserve near Amboor, or take the block already demarcated.

There have been no receipts from the reserves during the year, nor has there been any since their formation, and some years must yet elapse before any can be expected.

The Statement below shows the area, cost, &c., of the Reserves :—

Name and Situation of the Reserve.	Year in which the Reserve was formed.	Area.	Charges.		Receipts.	
			During the year.	Up to the year.	During the year.	Up to the year.
			Rs. A. P.	Rs. A. P.		
Mamandoor situated close to the Line from 90½ to 92½ miles on the North West Line, 8 miles north of Tripatti Station ...	1871 July.	2,560	181 3 0	2,323 10 11	Nil.	Nil.
Amboor situated about 4 miles from, and South of, the Amboor Railway Station in the Vellore Taluq ...	1872 March. But work stopped shortly after by order of Government.	3,840	19 2 6	222 10 6	Nil.	Nil.

The small expenditure of Rupees 181-3-0 this year, compared with Rupees 654 spent last year, is owing to the fencing nurseries and other heavy works being completed last year ; this year we only fire-traced the reserve and sowed seed in bare places by digging small holes and sowing four or five seeds in each.

The expenditure this year on the Amboor Reserve was incurred in altering the situation of the boundary stones. The previous expenditure in felling jungle to clear a line for the survey, purchase of demarcation stones, &c., but the jungle has grown again and should it be finally decided that the reserve is to be given to us, the work will have to be done over again.

C. Plantations.—The Statement below gives all necessary information regarding the area, description, and number of trees, charges and receipt of the plantations :—

Names of Plantations.	Year in which Plantation was formed.	Area.	Description of Trees.	Number of Trees.	Charges.						Receipts.						Remarks.
					During the year.			Up to the year.			During the year.			Up to the year.			
					Rs.	A.	P.	Rs.	A.	P.	Rs	A.	P.	Rs.	A.	P.	
Trivellum ...	January 1868..	434-87	Casuarina ...	136,498	813	0	11	10,290	6	11	*353	2	0	353	2	0	* And Rupees 250 seed supplied to other plantations.
Veringipuram...	June 1870 ...	260-48	Do. ...	191,247	1,428	1	0	6,179	0	0	...	...	...	...	...	..	Will be planted up to this season.
Thengal... ...	November 1872.	About 110	Do. ...	3,000	86	4	0	121	2	0	...	...	...	...	...	...	
Keelminnel ...	March 1873 ...	About 150	Do. ...	7,000	803	10	1	853	10	1	...	...	...	...	...	...	
Chaynoor ...	February 1871.	129-98	Acacia and Cassia of species and Casuarina.	81,000	1,450	7	6	3,874	7	6	...	...	...	...	...	...	Will be planted up this season.
Gazerlamundum.	July 1871 ...	44-67	Casuarina...	44,000	435	3	0	1,621	1	10	...	...	...	...	...	...	Is planted up..
Vannivedu ...	April 1873 ...	About 30	Do. ...	5,000	151	15	8	151	15	8	16	0	0	16	0	0	Will be planted up this season.
Ammundy ...	June 1873 ...	About 160	Do. ...	None.	†237	10	2	237	10	2	...	...	...	...	...	...	† Purchase of land, nursery, &c.
Ammerdy ...	September 1867.	25	Many kinds of indigenous and exotic trees.	11,000	162	0	0	2,617	11	9	...	...	...	...	...	...	Experimental plantation.

There will, I am afraid, be rather a heavy loss of plants on some of the plantations. We have had hardly any rain since October 1873, and now the hot dry weather is telling on the plants. It must be remembered that all about two of my plantations are in the old beds of rivers and the soil loose sand, and although the Casuarina thrives excellently on such land usually, the percentage of deaths in a bad season must be greater than with other trees on favorable land, *i.e.*, land of a closer nature that retains moisture longer. The Trivellum and Veringipuram Plantations are the only two that are suffering very much. In Trivellum there is a long strip varying from 100 to 20 yards wide running down the centre of the plantation, commencing near the Poiney Railway Bridge and ending where the Poiney and Palar rivers join, a distance of nearly two miles; this strip is where the flood-water of the Poiney broke in and swept 20,000 trees before it on 2nd May 1872; the upper soil which was then pretty good was also swept away, leaving exposed a nasty course shingle. This strip was replanted in July the same year, and was doing well up to this time; some of the plants now being 20 feet high, but from the nature of the soil a season like this tells with severity on the plants standing on it. While the other river has water, the strip, being only a little above the bed, has water sufficiently near the surface to supply the plants, but when water is not found within 2 or 3 feet of the surface in the bed of the river as at present, this strip becomes in a short time perfectly dry, not the least moisture can be detected at 4 and 5 feet from the surface. Watering by coolies is almost useless, as the water runs through this shingle as throuhg a sieve, leaving it in one hour as dry as it was before watering. It is in this piece that the trees are now dying in hundreds, about 5,000 are already dead, about the same number are nearly so, and nearly the whole are drooping and sickly; extra coolies have been put on to water the drooping and try to save as many as possible, to dig out the dead and prepare the land for fresh plants, and to cut up the wood for auction. The land can be replanted for about Rupees 500, but there is two years' dead loss. The remainder of the plantation is kept in very good order at the expense of about 20 women, beyond the usual number to water the plants. This is the first year there has been any receipt from the plantation, the actual money received was only Rupees 353-3-0 being from the sale of branch wood, the pruning of about 50 acres of trees which were pruned just sufficiently for a man to walk under them, but the plantation supplied 250 lbs. of seed, at Rupee 1 per lb., to my other plantations which ought to be counted to its credit.

The Veringipuram Plantation is filled with young plants under three years' old, and has suffered severely from the hot dry season; our establishment is not strong enough to water them more than once in twenty days, whereas they require water at least once a week in this weather, the consequence is a loss already of 19,000 plants, but to prevent any further loss I have put on a great number of coolies extra in anticipation of an extra grant being sanctioned.

The remainder of the plantations call for no remarks, they are all in a fairly satisfactory state.

SECTION III.

Forests worked under the License and Voucher system.

All our forests are opened to fell on license, except the fuel reserves; but we restrict the felling as much as possible to "junglewood," ourselves felling and selling as much of the reserved timbers as possible. It is now proposed entirely to do away with the issue of licenses for the reserved wood, but before this matter can be put on a satisfactory footing, it will be necessary to assimilate our reserved timbers with the reserved of surrounding districts, so that one may not be selling as junglewood what another sells as reserved timber. It would be well also that the Zemindars and other holders of private forests in the district should be requested, as far as possible, to introduce our rules and rates of seigniorage. As we have no forest worked entirely by departmental agency, I cannot compare the results of the two systems, but I think there cannot be any doubt as to which of the two is best. With the license system there is no expenditure beyond that incurred for the watching and preventive establishment, and all receipts in excess of the cost of the above is clear profit, but it is a ruinous system to the forests, and should be put down where possible. There is great waste of timber

in the selection, the license holder often felling several trees before he meets with one to suit his purpose, leaves the unsuitable ones to rot in the forest, and takes away only the suitable one. There is great waste in the felling, the axe-man invariably laying the axe 3 or 4 feet from the crown of the roots and spreading the cut over a large surface, and great waste in squaring and cutting up the timber in the forests, therefore, I think that, although the immediate money profit is greater under the license system than under departmental felling, the latter is the cheapest and most economical in the end, seeing that the department would mark all trees to be felled after a careful consideration of the want of the depôt to be supplied, would utilize all felled, and might after a little time, if permanent employment could be found for the woodsmen, train them to cut with the saw, or if with the axe, would see it laid in close to the ground.

STATEMENT showing the Collections under the License system.

Description of Timber, &c., removed under the License system.	Quantity.	Amount realized.		
		RS.	A.	P.
Reserved wood, bandy-loads	449	1,041	0	0
Junglewood, ,, ...	2,665	2,665	0	0
Do. head-loads	167	20	14	0
Firewood, bandy-loads, at 1 Rupee ...	1,450	1,450	0	0
Do. do. at 6 Annas ...	1,847	692	10	0
Do. head-loads, at 9 Pies... ...	379	17	12	3
Do. do. at 3 ,, ...	853	13	5	3
Charcoal, bandy-loads, at 1 Rupee ...	973	973	0	0
Do. head-loads, at 1 Anna ...	868	54	4	0
Bamboos, bandy-loads, at 8 ,, ...	9,214	4,607	0	0
Do. head-loads, at 1 ,, ...	3,624	226	8	0
Dying Bark, bandy-loads, at 1 Rupee..	190	190	0	0
Forest produce, fruit	...	515	12	6
Railway fuel, bandy-loads of 1,000 lbs.	...	1,390	0	0
Total...	...	13,857	2	0

SECTION IV.

YIELD OF FORESTS.

The subjoined statement shows the total yield of the forests under all heads.

Most of the wood, &c., taken free is taken without license under Rule 26 for the conservancy of the jungles of this district, published in the District Gazette of 22nd April 1871. Of all that passes my tannahs, a register is kept, but nearly all is taken by head-loads without passing the tannahs, and of this I can only give the probable amount taken after a careful consideration of the numbers to be supplied and the known wants of each.

These accounts relate only to the taluqs of Vellore, Poloor, and the half taluq of Chendragherry.

Ranges.	Timber.				Firewood for Railway and other purposes.		Bamboos.		Dying Bark.	Charcoal.	Forest Produce.
	Departmentally.		On License.	Free.	On License and Departmentally.	Free.	On License.	Free.			
	Cubic Feet.	Maunds.	Bandy Load.	Bandy Load.	Bandy Load.	Bandy Load.	Bandy Load.	Bandy Load.	Bandy Load.	Bandy Load.	
Vellore	589½	304½	1,129	268	1,918	6,000	5,673	185½	51	311	Sale of Tamarind fruit, Rs. 515-12-6.
Poloor	.....	.....	1,203	190	1,362	4,500	2,298	64	136	335	
Chendragherry ...	.....	18,900	803	112½	1,466	1,000	1,696	18½	3	381	
Total ...	589½	19,204½	3,135	570½	4,746	11,500	9,667	268	190	1,027	

SECTION V.

Financial Results.

A.—*Statement showing the Receipts and Disbursements of the North Arcot Forests for the year* 1873-74.

Classifications.	Amount.	
	Rs. A. P.	Rs. A. P.
Receipts.		
I.—Sale of timber, etc., removed by Government agency...	2,178 8 0	
II.—Sale of timber removed on license	13,341 5 6	
III.—Duty on foreign timber	.....	
IV.—Permit fees, etc.	.....	
V.—Grazing dues, etc.	.....	
VI.—Sale of fruits, Babool pods, etc.	515 12 6	
VII.—Sale of confiscated timber	294 5 5	
VIII.—Fines and forfeitures	.....	
IX.—Miscellaneous receipts	5 10 3	
Value of timber supplied to Department Public Works	509 6 0	
Total, Receipts...	.....	16,844 15 8
A.—*Conservancy and Working Expenditure.*		
I.—Expenses for felling timber, etc.	2,135 5 5	
II.—Purchase of tools, etc.	.....	
III.—Feed and keep of cattle, etc.	.....	
IV.—Rent of leased forests	.....	
V.—Charges connected with the collection of Forest produce.	.....	
VI.—Plantations	5,558 13 4	
VI-A.—Forest Reserve	241 0 2	
VII.—Forest work, viz., cutting of creepers, etc.	.....	
VIII.—Forest Survey	.....	
IX.—Experiments to test the value of timber	.....	
X.—Communications, etc.	26 7 1	
Amount refunded into the Treasury	.....	
Miscellaneous charges	.....	
Total, Conservancy and Working...	.....	7,961 10 0
B.—*Establishment.*		
I.—Salaries—		
2. Pay of Executive Officer	3,000 0 0	
3. Office Establishment	588 0 0	
4. Forest Conservancy Establishment	3,814 14 10	
5. Timber Depôt and Work Establishment	.....	
6. Deputation and Special Allowances	.....	
II.—Travelling Allowances—		
2. Executive Officer	1,800 0 0	
3. Subordinate Establishment	360 0 0	
Gumastah and Peons	1 2 0	
III.—Contingencies—		
Office Postage	58 11 6	
5. Sundries	111 6 5	
Fees paid to Monigars for checking licenses ...	483 6 2	
Total, Establishment...	.....	10,217 8 11
Total, Expenditure...	.....	18,179 2 11

Classifications.				Amount.					
				Rs.	A.	P.	Rs.	A.	P.
Balance of timber in depôt on 31st March 1873	1,384	12	0	.....					
Deduct difference in value on timber being re-valued according to the order of Collector in his letter, dated 28th October 1873, No. 969...	290	12	0						
				1,094	0	0			
Add timber felled in 1873-74				2,987	8	0			
Total ...				.....			4,081	8	0
Deduct timber sold in 1873-74, being the depôt rate not the rate realized				.....			1,245	4	0
Balance of timber on hand on 31st March 1874				.....			*2,836	4	0
* Particulars of the balance of timber on hand and valuation—									
21,730 Maunds of Redwood roots, valued at Annas 2 per maund				2,716	4	0			
240 Bandies of Casuarina wood, valued at Annas 8 per bandy				120	0	0			
Increase in stock...				.....			1,742	4	0
Financial results, balance in favor of the North Arcot Forests				.....			408	0	9

B.—Statement showing in detail the Timber felled in the North Arcot Forests during the year 1873-74.

Division of Range.	Description of Timber and other Forest produce.	No. of Cubic Feet.	No. of Maunds.	Rate of Valuation per Cubic Foot.	Rate of Valuation per Maund.	Total Valuation.
1	2	3	4	5	6	7
				Rs. A. P.	Rs. A. P.	Rs. A. P.
Kurcumbadi..	Redwood roots	...	18,900	.....	0 2 0	2,362 8 0
Vellore ...	Sandalwood	...	304½	.....	1 0 0	304 8 0
Do. ...	Yellama beams	126	...	0 10 0	.....	78 12 0
Do. ...	Do. poles	20	...	1 0 0	.....	20 0 0
Do. ...	Casuarina poles and wood	443½	Bandy loads.	0 8 0	per bandy load.	221 12 0
					Total ...	2,987 8 0

C.—*Statement of Timber, etc, sold from the Depôts of the North Arcot Forests during the year* 1873-74.

Name of Depôt.	Description of Timber or other Forest produce; Number of Cubic feet or Maunds sold, and Rate of Valuation per Cubic Foot or Maund.	Total Valuation.	Total Amount actually realized.	Difference between Columns 3 and 4.	Explanation of difference.
1	2	3	4	5	6
		RS. A. P.	RS. A. P.	RS. A. P.	
Kurcumbadi..	306 Maunds of Redwood roots	38 4 0	51 0 0	12 12 0	
Do. ...	530 Cubic feet of Redwood posts	530 0 0	631 5 0	101 5 0	
Vellore ...	304½ Maunds of Sandalwood	304 8 0	1,153 2 6	848 10 6	
Do. ...	257½ Cubic feet of Mango beams ...	172 0 0	321 14 0	149 14 0	
Do. ...	6 Cubic feet of Yellama beams	3 12 0	8 0 0	4 4 0	
Do. ...	120 do. do....	75 0 0	150 0 0	75 0 0	
Do. ...	20 do. of Yellama poles	20 0 0	31 10 6	11 10 6	
Do. ...	136 Bandy-loads of Casuarina wood ...	68 0 0	151 15 0	83 15 0	
Do. ...	67½ do. do. ...	33 12 0	188 15 0	155 3 0	
	Total...	1,245 4 0	2,687 14 0	... ...	
Total showing aggregate Increase...		... ...	... ...	1,442 10 0	

D.—*Statement containing the Particulars of the Stock in hand at the commencement and close of the Official Year* 1873-74.

Description of Timber or Forest produce.	Number of Cubic Feet.	Number of Maunds.	Rate per Cubic Foot or Maund.	Total Valuation.
1	2	3	4	5
			RS. A. P.	RS. A. P.
Redwood roots	...	3,136	0 2 0	*392 0 0
Do. posts	530	...	1 0 0	530 0 0
Mango beams	257½	...	0 10 8 $\frac{128}{516}$	172 0 0
Total...	787½	3,136	...	1,094 0 0
Add total valuation of Timber and forest produce felled during the year as per Column 7, Statement B.				2,987 8 0
Total...				4,081 8 0
Deduct total valuation of Timber, etc., sold during the year as per Column 3, Statement C.				1,245 4 0
Compare remainder with total under Column 5...				2,836 4 0

* Original valuation, Annas 3-5$\frac{157}{196}$ per Maund, revalued at Annas 2 by order of Collector in his letter, No. 969, dated 28th October 1873.

General Remarks.—The revenue, although Rupees 3,000 less than last year, is still satisfactory. The falling off of nearly Rupees 3,000 in the receipts for Railway fuel is not to be regretted, for the forests wanted rest. There are, compared with last year, Rupees 3,000 less from sale of depôt timber which I could not get sale for this year. Tenders for the Redwood were invited several times, and the wood was put up at public auction, but there were no bidders at the auction, and the offers by tender were too low to accept ; the highest offer was only Rupees 12-8-0 per ton, at the same time the London sales were quoted at £6-15-0 a ton. I fully believe we should find a better sale for our Redwood if we took it to Madras and disposed of it there by auction or tender ; the plan might, at any rate, be tried, and, if found not to answer, abandoned.

Smuggling of timber and wood is still very prevalent, although, perhaps, not to quite such an extent as formerly. There has been sixty-eight persons prosecuted for smuggling during the year, and twenty-four of that number convicted, but most of the people detected with smuggled wood have not been prosecuted for want of sufficient evidence, in these cases we merely confiscate the wood found with them.

The health of the establishment has been moderately good. I am the only one who has been seriously ill, most of us have had fever occasionally, but are all in good health now.

The Foresters and the Duffadar in charge of Chendragherry Forests have given every satisfaction in the discharge of their duties. The Office Writer and Gumastah, the Duffadars, Pygust, and Peons have also given satisfaction.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) T. SHEFFIELD,
Deputy Conservator of Forests, North Arcot.

COLLECTOR'S OFFICE, CUDDALORE,
6th August 1874.

No. 407.

From

J. H. GARSTIN, ESQ.,
Collector of South Arcot,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honor to submit the Forest Administration Report of this district for 1873-74, received from the Deputy-Conservator only on the 1st instant, with the nine statements which accompanied it.

2. The report contains a detailed account of the forest operations of the year, and as it seems to me unnecessary to enter into a recapitulation of those details, I confine my observations to the general results of the year.

3. The total receipts from forests amounted to Rupees 5,615-3-1, including the value (Rupees 66-2-3) of timber supplied to Public Works Department, which, under existing orders, is not recovered in cash, but which nevertheless should, I think, be treated as a receipt by the Forest Department. The receipts of the year under review exceed the estimate by Rupees 615. The increase occurred chiefly in Item 2, and in Miscellaneous Receipts.

4. Of the total expenditure, a sum of Rupees 3,622-14-6 only was for conservancy and working charges, and Rupees 6,421-6-9 for the salaries of the Deputy-Conservator and his establishment and office contingencies. The expenditure under both heads was within the sanctioned grant for the year as shown in the margin.

	Sanctioned grant.	Actual expenditure.
	Rs.	Rs.
Conservancy and Working.....	3,700	3,623
Establishment etc.....	6,500	6,421

SECTION II.

5. *A. Of the Deputy-Conservator's Report.*—The operations of the Forest Department during the year consisted in felling and conveying to the timber depôts 1,089 cubic feet of reserved timbers from the various jungles of the district, under the conservancy of that department, valued at Rupees 624, besides the removal of 920 cubic feet of timber, valued at Rupees 84, from the Chengum to the Trinomallay Depôt, also in the collection of 16$\frac{1}{2}$ths maunds of gall-nuts and other minor forest produce. These results are by no means satisfactory, but more would doubtless have been done had it not been for the severity of the fever season and the illness and death of the forester and the difficulty of supplying his place quickly and efficiently.

SECTION II.

6. *B.* The chief operations in the nine Imperial fuel-reserves in the Trinomallay and Tindivanum Taluqs consisted in fencing the boundaries of some of the reserves near Gingee. In the three local reserves, the boundary of some 3,000 acres has been surveyed. A detailed account of each is given by the Deputy-Conservator in Section II.-B of his report.

SECTION II.

7. *C. Plantations.*—Under this head, the Deputy-Conservator treats of Imperial and Local Jungle Conservancy plantations. The latter should have been reserved for his Jungle Conservancy Report. Nothing of importance seems to have been done during the year in the three Imperial plantations, which are small and merely experimental.

SECTION III.

8. The quantity of timber, reserved and unreserved, removed from the forests under licenses was 31,499 cubic feet, on which a seigniorage of Rupees 1,710 was collected. The seigniorage collected on bamboos was also an important item of receipt; Rupees 1,065 having been collected on 1,420 bandy-loads. These items, together with the seigniorage collected for minor forest produce such as Avaram Bark, etc., raise the total receipts from seigniorage to Rupees 3,880.

Office of Deputy-Conservator of Forests,
Cuddalore, 1*st August* 1874.

From

H. L. WOOLDRIDGE, Esq.,
Deputy-Conservator of Forests,

To

J. H. GARSTIN, Esq.,
Collector and Conservator of South Arcot.

Sir,—I have the honor to submit the annual report of the South Arcot Forests for the year 1873-74, with the usual Statements A. to G., and the two forms specified in Revenue Board's Proceedings, No. 133 of 27th January 1874 (giving particulars of reserves and plantations) attached.

SECTION I.

(*b.*) *Inspection Tours of the Deputy-Conservator.*—During the year, I proceeded on nine occasions on tours of inspection of works and jungles lying beyond the Cuddalore (head-quarters) Taluq; these inspections occupied 143 days, and the following list will show to what operations the time was given. The Chengum Reserves and Hill-forests were visited on three occasions. Trinomallay and jungles around on four occasions. Kullacurchy Taluq Jungles and the Jungle Conservancy Plantations on channels and tanks once; Gingee Reserves five times, Tindevanum and jungles on three occasions. The Trivanellore (including the Anicut Plantation) Plantations and Trikalore Taluq Jungles on six occasions. Gungavarum Reserve twice. Villapooram Reserve twice, and the Mercanum Jungle Conservancy Plantations and Reserves twice. The Cuddalore Taluq Plantations and Reserve being close to head-quarters (the farthest plantation being about eight miles distant) were visited regularly when I was at head-quarters; the principal plantation upwards of forty times, and others in proportion. The Inspector of Forests visited the district once in the year, the Acting Collector inspected the most important Jungle Conservancy Plantations (lately commenced) several times, and the Collector since his return has inspected the Mercanum and Cuddalore Plantations. The towns and principal villages passed through on the first inspection tour undertaken were Punrooty, Trivanellore, Trikalore, Muttetoor, Gingee, Tindevanum and Pondicherry; on the second, Tindevanum Gingee, Trinomallay, Chengum, Trikalore and Villapooram; on the third, Punrooty, Oolundoorpet, Thiagadroog, Ellavansoor, Kullacurchy, Kutchiroyapolliem, Shunkrapooram and Chinna-Salem; on the fourth, Trivanellore, Trikalore and Trinomallay; on the fifth, Pondicherry, Mercanum, and Alathoor; on the sixth, Gingee, Trinomallay, Chengum, Trikalore, Vettavalum, Trivanellore and Punrooty; on the seventh, Kullenchavady and Kuringipady; on the eighth, Pondicherry, Mercanum, Alathoor, Moonoor, and Bramadasem; on the nineth, Mylum, Tindevanum, Gingee, Anathoor, Trivanellore, Trikalore, Trinomallay, Chengum Pachell, Gingee, and Vanoor.

SECTION II.

Reserves.

A. Reserved Forests.—Properly speaking up to date no forests have been specially formed into a reserve, but I have already proposed three hills with their forests to be so classed. These are, the Thanemallay, the Cavatymallay, and the Trinomallay. The greater part of the Thanemallay (generally included with the Javadi hills) is in the Salem District, but is distinctly separated from the Javadimalley by the valley of the "Cheyar," and cannot well be worked or conserved from the Tripatoor side; the slopes are new and have been, since conservancy was introduced to this district, worked and conserved by the South Arcot establishment. The River Cheyar above named runs past Chengum Depôt. The large fuel reserve (Moodanai) stretching along the southern and eastern base of this hill is a great protection to it, and the plateau is well worth some attention being bestowed on it, being rich in young Sandal and Teak trees. Fire has been excluded at some trouble from the entire hill, if I except the southernmost spurs which unfortunately were fired so late as March this year, and when the Inspector of Forest was at Chengum.

The Cavatymallay is within eight miles of the cusbah of the taluq and has a fair amount of timber on it, principally young Nummai Trees (*Conocarpus latifolia*), which class of wood is much valued in this district for building purposes; this forest has been closed to felling, though not yet properly formed into a reserve, and no fire occurred this season.

The third named is the sacred hill immediately under which the town of Trinomallay lies. The north and eastern slopes of this hill are thinly scattered over with Satin, Blackwood, and Vengai; but on the southern and western slopes these trees are more numerous, and it is this portion which it is proposed to make a forest reserve of. The situation is most appropriate, abutting as it does on the township itself; its western boundary would extend about three miles

along the Chengum Road. The young Vengai and Blackwood Trees have been carefully looked after during the year under report by the peons, assisted occasionally by a watchman. The expenditure for it was Rupees 20-5-8, which has been entered under Forest Improvement. In last year, the expenditure under this heading was Rupees 87-9-6. The usual cutting away of creepers from the young forest trees throughout the rest of the range has not been carried on to the same extent in this year, as no allotment existed.

The rest of the forests are open to license felling for white or third-class junglewood only, and for bamboos; all the first and second-class kinds are reserved for departmental felling, and the operations in this way during the year were 200 trees felled, mostly Maruthey, Vengai, Acha, Karungali and Nummai. These were worked up into 323 logs, containing about cubic feet 1,090; felling and bringing these logs out of the forest cost Rupees 213-7-9; carting them to depôts Rupees 201-10-0; some 16 maunds of Kaduka (*Terminalia Chebula*) nuts were collected from the slopes above the Moodanai Reserve at an expenditure of Rupees 5-1-0; 215 logs of old stock principally "Nummai" were transferred from Chengum to Trinomallay at a cost of Rupees 79-8-0, as better rates could be realized for that class of timber in the latter town. I propose in future to send all the Chengum timber to Trinomallay. The cost of the depôt establishment was Rupees 218-8-8. The amount realized by depôt timber sold to the public in this year was Rupees 932-14-7; 68$\frac{8}{8}$ths cubic feet were supplied to Public Works Department for Rupees 66-2-3 (the market rates for the classes of wood taken). The balance of Kaduka nuts remaining in hand of last year's stock with the small quantity newly collected were sold for Rupees 141-4-0, or at 100 per cent. beyond cost. The old stock of firewood was sold at 18 Rupees below its original valuation as it was deteriorating; this fuel would have sold well enough had the town not been supplied by free fuel which, by the rules in force, people are allowed to bring in, in head-loads free of charge or license. Besides the above, a sum of Rupees 38-15-4 was credited to forest timber sales account in this year, being the sum realized by sale of sixteen logs of Nummai so late in March 1873, as did not admit of its being credited in its proper year.

The departmental felling and sale transactions on the whole show by Statement D. a decrease of value of stock in the year of Rupees 337-1-6; notwithstanding the sales show an aggregate profit of Rupees 152-4-9 above valuations; the latter item would have been much higher had there been no old stock (too highly valued by the former method) to get rid off. Little remains however now of this old stock; only sixty-seven logs in fact, and it may be affirmed that the ensuing year's operations will show better results. The smallness of the departmental felling operations is to be accounted for by the severity of the fever season and the illness of the forester, K. Ramier, who had to take sick leave in June 1873, but died before its expiry. The post was then held temporarily for a little over two months by Colundavaloo Chetty, a reserve Pygust in North Arcot Range, till the present incumbent, Kader Hossein Sahib, took charge. He, though being comparatively untrained to forest operations, at once pushed on felling operations, but too late in the season for much results. It would tend much to the benefit of this range if a second or sub-forester was allowed for it.

The receipts by depôt sales of timber and other forest produce in the year, as per Statement C., is Rupees 1,197-10-2 less than the receipts for similar items last year, which was Rupees 1,342-6-5, by Rupees 144-12-3, to be explained by there being no felling for the first six months in the year. The expenditure on timber operations and departmental collections of minor produce has been Rupees 718-3-5 in last year, the same item was Rupees 558-6-8; but 276 feet of timber more than in last year were brought out in this, and 920 feet were moved twenty miles nearer to market. On the other hand, only sixteen maunds of produce were collected this year against 147 maunds in last year.

The expenditure on experiments in this year, under which heading I have placed the collection of specimens of wood, dyes, and gums of the district has been Rupees 29-8-0; in last year nothing (6 Annas only).

SECTION II.

B, Fuel Reserves.—Of these there are twelve in the district under the charge of the forest officer. Four in Trinomallay Taluq of old standing, hitherto supported by Imperial Funds. Five in Gingee Division, Tindevanum Taluq, also supported to date by Imperial Funds. One nearer the coast in same taluq by Local Funds, and one in Villapooram Taluq also supported by Local Funds, and one in Cuddalore Taluq also "Local." The whole area is roughly estimated to be a little over 48,000 acres. None have been surveyed. At Villapooram Reserve a survey was commenced with Local Funds in February 1874, but not completed yet, as amount of funds available did not admit of further expenditure. A large portion of the sum estimated for working charges for the reserves for 1874-75 is for the survey and permanent demarcation of them, which is found to be very necessary. It has been proposed to give up one of the five reserves in Trinomallay Taluq (the Annandavady) from the commencement of 1874-75. As the jungle is not required for local nor suited for railway fuel, there has been no expenditure on it to date.

The accompanying statement shows the area, charges, and receipts for each reserve up to 31st March 1874. I have considered it best to enter the local fuel-reserves, *i. e.*, those supported by Local Funds in this statement with those supported by Imperial Funds, as their classification is not yet finally decided, and it will show the extent of reserve operations carried on in this district under the forest officer.

To take them in detail: *Oralthoor Reserve*, situated five miles northwest of Villapooram, is purposed to supply purely local demands, that is, fuel for town of Villapooram and villages near; the jungle was taken over in November 1873, and the cost of it has been borne by Local Funds. It is under the charge of a Maistry who is assisted by two rangers or watchers. It is a promising jungle but in detached blocks, much indented by strips of cultivation with a very lengthy and irregular boundary. The better portions will be enclosed and planted up if funds admit. The rest it is proposed to apportion among the twenty-two villages within whose limit it is situate.

The *Oapper Mully Reserve*, situated ten miles southwest of Cuddalore (Town), is similarly destined for village and town supply; there has been no cost on it. There is a large block of dense scrub estimated to be about 500 cawnies, of which only thirty are to be enclosed as an experiment to note the rapidity of natural growth. A large extent of open waste, upwards of sixteen square miles, extends beyond the 500 cawnies of jungle above noted. This waste was formerly all jungle. The demand for firewood on the coast-lying villages has denuded this tract. The people have been in the habit of grubbing up the roots for fuel as well as cutting the bushes, consequently natural reproduction will never take place; but as the soil is tolerable throughout, it would probably be worth "reboisement." *Acacia* sown broadcast after plouging up the land would, I believe, succeed.

Alathoor Reserve, situated four miles from the sea-coast near Mercanum taken up in August 1873, is also proposed to supply village wants (the expenditure on it has been borne by Local Funds). It is under the charge of one watcher, who is under the supervision of the Mercanum Jungle Conservancy Plantation Maistry. The jungle is thick and large, principally "Kachan," large Tamarind, Karungali, Satinwood, Tooringee, and Nagai Trees occur in it. The soil is good, red or dark colored, and water plentiful. As these three are supported by Local Funds, and as a full detail of the work carried on is given in my annual report on the Jungle Conservancy operations under me, I have only alluded to them briefly in this report.

I now come to the reserves supported by Imperial Funds.

Mootacadoo—One of the Gingee Railway Fuel Reserves. Supplemental planting was commenced in 1871, boundary finally settled in 1872, neither fenced nor surveyed and only roughly demarcated; the chief work carried on during the year under report was upkeep of planting of 1872, replacing casualties that occurred, keeping up the nurseries, fencing off with bush and thorns patches of jungle to aid natural reproduction, clearing creepers, etc., from young jungle trees,

pruning plantation trees, collecting seeds, keeping out fire, preventing cattle doing more damage than need be, repairing and strengthening bunds around natural hollows to store rain-water, cutting catch-drains to lead the water to them, and dibbling in seeds in the moister spots. On this reserve, there is one stream which runs for six months in the year. Amongst the 33,467 trees existing on 31st March 1873 of those planted in pits during monsoons of 1871 and 1872. On this reserve, 6,951 casualties occurred in the year (it frequently happened that one pit had to be planted again and again before the plant was finally established), 6,851 were replaced with plants of a different description. The kinds most planted in this reserve are *C. florida*, *A. speciosa*, *A. leucophlœa*, *A. amara*, *Melia Azadirachta*, *Azadirachta Indica*, *Prosopis spicigera*, *Strychnos Potatorum*, *Eugenia Jambolana*, *Tamarindus Indicus* : *A. Arabica*, *A. sundra*, *A. odoratissima*, *Casuarina equestifolia*, *Inga dulcis*, *Sapindus emarginatus*, *Pongamia glabra*, *Odina wodier*, *Feronia elephantum*, *Bassia longifolia* in lesser quantity. Some branches of *Thespesia populnea* and a few *Chloroxylon*, *Hardwickia*, *Dalbergia* and *Terminalia* as an experiment. The greatest percentage of casualties occurred among the Nym (*Azadirachta Indica*) Munney Poongen (*Sapindus emarginatus*), Nagai (*Eugenia Jambolana*), Valum (*Acacia Arabica*), and Karungali (*Acacia sundra*) ; but the failures in the last two sorts were caused by their being nursery plants with very long tap-roots which had to be cut short when planted out, and I find that seed sown broadcast in land scratched over with a mamooty or plough or dibbled in at short distances apart is best for this class of tree. One hundred and seventy-five pits remaining open of those dug in previous years were planted with Katvalai (*A. speciosa*). No more were put down as all the available funds were wanted for upkeep of old work. The bamboo seed dibbled in last year has grown well in many places, and thirty-five measures of Tamarind seed which have been dibbled in throughout the reserve this year are thriving to date ; 1,807 young saplings have been cleared out ; 1,316 yards of bush-fencing were put up. Two new blocks enclosed for planting up next season, and the rest of the natural jungle carefully attended to. During the last eight months, the deadwood has been cleared out from the living jungle by woodcutters under supervision of one of the reserve establishment.

The cost of these operations was Rupees 511-5-11, viz., supervision (Maistry), Rupees 76-5-0 ; up-keep, Rupees 424-13-11 ; fencing, Rupees 8-10-0 ; planting, Rupees 1-9-0 ; but Rupees 615-13-2 was the expenditure by accounts to be explained by arrears of wages due for 1872-73 being paid in the year 1873-74. The expenditure by accounts for this reserve for the former year was Rupees 544-6-4. The total number of trees existing on 31st March 1874, of those planted in pits (at $4\times4, 6\times6$ and 8×8 feet apart) in the different years was 34,642. The incurred cost of the operations up to same date was Rupees 1,711-4-6 ; this will be slightly more than that apparent by accounts rendered, as they do not take in March's wages.

The receipts from this reserve by sale of deadwood, bark, dyes, honey, and wax have been Rupees 334-2-2 for the year ending March 1874, and in the former year was Rupees 8-5-0 (viz., from Tamarind Rupees 2-12-0, and confiscation Rupees 5-9-0). The revenue derived this year was obtained as follows :—

		Net proceeds.		
		RS.	A.	P.
	2,160 maunds of bark...	40	8	0
	19 lbs. and 28 lbs. of honey and wax, respectively	12	9	11
	1,24½ maunds of Tamarind fruit and 22 maunds of dyeroot	3	14	3
	439 bandy-loads of deadwood (firewood)	259	14	0
Confiscations.	21½ bandy-loads of firewood, 44 maunds of bark and 1 bandy-load of mixed timber...	17	4	0
	Total ...	334	2	2

Siroovady—Railway Fuel Reserve lying northwest of the former and nearly adjoining it. The land was taken over in 1872, and supplemental planting commenced same year. A very compact piece of jungle, open to the plain on its northern side for about half mile, hemmed in by rocky hills everywhere else, two large tanks in it, bunds of both breached many years ago, not repaired since, no running stream in it, the boundaries of this reserve were settled in 1872, but it is neither fenced nor has it been surveyed ; the chief work carried on during the year was upkeep of the planting of 1872, replacing the casualties, etc., as in Mootacadoo, but not to the same extent. Among the 10,983 trees existing on the 31st March 1873 of those planted in pits, in the former season, 3,662 casualties occurred in this year, 2,697 were replaced with Koné and Katvalai. The first of these, commonly termed "mile koné" from its frequency as an avenue tree along the district roads, I find the best kind to plant for nurses to the permanent growth; Katvalai is also a rapid-growing tree and much valued both as fuel and timber by the people. The sorts attempted in this reserve were originally Koné of sorts, Casuarina, Katvalai, Nagai, Soundel, and Vemboo ; the greatest percentage of failures occurred in the Casuarina and Vemboo. The jungle is full of young Parambai Trees grown from self-sown seed ; 771 pits remaining open of those dug in former years were planted with Katvalai (*A. speciosa*) ; further planting was stopped for the same cause as mentioned before for Mootacadoo Reserve; nine measures of Tamarind seeds were dibbled in, in suitable spots ; 1,221 sapplings, chiefly Parambai (*A. spicegera*) were cleared out ; 2,287 yards of double bush-fencing were raised along a bullock track for about $\frac{3}{4}$ths of a mile, and the ends returned to preserve the jungle at this edge of the reserve from damage by cattle which are allowed to be pastured within it and which always enter by this road ; the natural jungle was well attended to here also. The cost of these operations was Rupees 253-10-10 divided as follows: for supervision (Maistry) Rupees 62-5-0 ; up-keep, Rupees 168-13-10 ; fencing, Rupees 16-4-0 ; planting, Rupees 6-4-0. The expenditure by the accounts rendered was Rupees 314-0-1. The excess caused by arrears of former year. The expenditure by accounts rendered for the former year was Rupees 327-10-9. The total number of trees existing on 31st March 1874 of those planted in pits (at eight feet apart), was 10,789. The incurred cost of operations from commencement up to same date was Rupees 660-9-10.

Cottamangalum—for Railway Fuel—lying adjoining to and north of Mootacadoo and to the east of Siroovady was formed in 1869 ; it then consisted of two reserves ; it is a straggling piece of jungle, about four miles long, with a good deal of putta and maniem land partly cultivated partly jungle, of the same growth as the reserve along its eastern and western limits, making a very irregular boundary. The boundaries, indeed, on this side are still in course of settlement relative to the maniem lands within what was the original line of demarcation. It has not been surveyed or fenced, nor is it closed to grazing, goats even being admitted to the outskirts of the reserve. This is consequent upon the line of boundary not being permanently settled, and, therefore, unknown to the herdsmen and even to the Conservancy Establishment in some places. There are several small tanks and masonry reservoirs in this reserve. No running stream, but irrigation channels from the Shankarabarany River run close past the northern edge of this, and similarly to the Siroovady Reserve. This River rises in the Pakkum Hills and runs by Gingee Bungalow ; it is more generally known by the name of the Gingee River. Supplemental planting in the openings of the jungle was commenced in 1872 ; the chief work on this reserve was upkeep of last year's planting, such as replacing the casualites, watering, staking, shading, keeping the young trees free of creepers and to a single head. Collecting and dibbling in seed, twenty-eight measures of Tamarind seed were so treated ; fencing the bandy-tract through the planted land leading to Mailcherry Village from Shany Colum, the wood depôt of Mootacadoo Reserve on the Gingee-Trinomallay Road, and special watching entailed by cattle, goats, and sheep grazing within the limits as above stated. Among the 8,534 trees established in pits (at eight feet apart every way) in the openings of the natural jungle, on the 31st March 1873, 4,296 casualties occurred during the year ; of these, 2,723 were replaced. The cause of so many casualties here was, I imagine, weakly trees in nursery, they having been reared in too much

shade, in too rich a soil compared with the rest of the reserve, forced by too much watering, water being (rather unfortunately in this case) plentiful close to the nursery. Up to the end of February 1872, the planting looked vigorous and healthy. After that the hot season killed them off rapidly; the nursery ground and system of rearing has been changed here; the supplies are not doing very well, though nearly all Katvalai; this *Acacia* with *Cassia florida* doing best of all that have been tried. Some extra expenditure should be incurred for watering the plantations in this reserve on account of the gritty nature of the soil. No pits were newly dug, and only eighty-nine young trees put out in pits remaining from last year's work; 2,530 trees of last year's planting, which required support, were staked and tried. From 882 young jungle trees, the undergrowth and creepers were cleared away; 1,515 yards of bush-fencing raised, half-mile of roadway cut out, and a drain sixty yards in length cut (four feet greatest depth) to lead the rain-water draining from the Mailcherry Hill to a large old stone-built reservoir, before dry, now from this little work containing water during the hot season. The cost of these and general conservancy operations was Rupees 208-12-0, divided as follows: Rupees 52-7-5 for supervision; Rupees 147-0-7 for upkeep; Rupees 8-4-0 for fencing; 1 Rupee for planting. The expenditure by the accounts rendered was Rupees 243-13-6. The expenditure by accounts in former year was Rupees 184-7-4.

The total number of trees established in pits in the plantations on this reserve on 31st March 1874 was 7,050.

The incurred cost of operations from commencement to the same date, Rupees 445-2-10. The Maistry and Head Gardener of this reserve were dismissed for careless work during the year.

These foregoing three reserves form the northern division of Gingee Reserves.

Padepallum—Railway Fuel situated south of Mootacadoo and stretching some way into the plain country towards Villapooram was formed in 1869; the natural jungle is of a larger description than any of the three former, and being at a lower elevation is wetter; springs, swamps and ponds existing in many places; the block is much cut up by both wet and dry cultivation; it is the nearest of any of the reserves to the line of the railway. The planting operations which were commenced in 1872 have not proved so successful as at Mootacadoo or Siroovady. I attribute this to bad supervision by the Maistry (whom I found it necessary to dismiss later) quite as much as to want of water; not that the wells dried up, but because sufficient funds for upkeep were not available. The expenditure was almost entirely for upkeep of young trees planted; the works carried out in doing this were replacing casualties, watering, staking, fencing, keeping creepers down, collecting seed, and keeping channels to reservoirs open. Among the 11,373 trees existing in pits on 31st March 1873, 4,668 casualties occurred during the year. Of these, 2,818 were replaced with Koné and Katvalai in equal quantities. Casualties occurred most in Casuarina, which sort evidently won't answer in this land at all; too much cost being necessary for watering them; the supplies were put in rather late in the season and were not over-vigorous at the close of the year; 171 young Koné trees were planted out in last year's open pits, 2,359 trees of 1872 planting were staked, 788 yards of bush-fencing set, eighty yards of ditching cut to drain a piece of nursery land, and 1,915 trees cleared around, principally Velvalum and Nym, and nine measures of Tamarind seed were dibbled in, in different places in the reserve. The cost of these operations and conserving the natural jungles was Rupees 227-5-11 divided thus: for supervision, Rupees 58-8-0; for upkeep, Rupees 162-0-11; for fencing, Rupees 5-4-0; for planting, Rupees 1-9-0. The expenditure for this year by accounts rendered was Rupees 265-3-10, the difference caused by three months' arrears of last year's wages being paid in this. The expenditure by accounts for former year was Rupees 459-4-2.

The total number of trees remaining established in pits on 31st March 1874 was 9,694. The incurred cost of operations from commencement to same date was Rupees 838-14-6.

Periamoor—A Railway Reserve is situated westward of Padepallum Reserve, and extending to the base of the Pakkum Hills and to the so-called "Gungavarum" Reserve on the west and south sides, respectively; this is the largest reserve of the group, and is subject (so far as I can

judge by the rough memorandum of weather that I make each Maistry keep) to a greater rainfall than any of the others; the natural jungle is mostly evergreen, and I find forest timber-trees such as Vengai, Acha, Maruthy, Jackwood and wild Mango (of which a few plants have been put down on each reserve experimentally) do best here; the Casuarina plants are also doing well. In connection with this reserve, I would mention that the forest on the Pakkum Hills is now felled in a most reckless manner by parties protected by licenses purchased of, and issued by, the Tindivanum Tahsildars, and the receipts derived from which go to swell the Jungle Conservancy Budget. It is however certain that from want of a proper establishment to check the removals, each ticket (license) is used many times over, and even felling carried on without authority (except may be sometimes a Monigar's hand-chit) with impunity, it not being the province of the Forest Conservancy Peons nor of the reserve Maistries to look to this; for it is not yet a portion reserved, though it has long ago been advocated by me that it should be so; nor do these hills as yet form a portion of my forest charge. As this is the only tract of forest within a moderate distance (35 miles) of the coast from which building timber of any size can be obtained, the necessity for better conservancy will be sufficiently obvious. Attention has been chiefly given to the upkeep of the planting of 1872, and improvement of the reserve by replacing casualties, watering, staking, etc., etc., as in other reserves, and collecting seed, dibbling in seed, making fences, clearing away noxious creepers and useless thorns, preventing illicit felling, and so on. Among 17,635 trees existing in pits on 31st March 1873, 5,451 casualties occurred during the year. Of these, 2,690 only were replaced, and 100 new trees were put out in fresh ground besides. Casualties occurred most among the Vepum plants; the new supplies are doing well. The Maistry who was in charge of this reserve did his work very well, particularly his nurseries, but could neither write or keep his rolls correctly. Since the second reduction of the planting establishment in August 1873, consequent on short allotment for the year, he has been doing duty as ranger (watchman); 2,200 young trees in the plantations had to be supported by stakes, as their growth was so rapid as to cause their heads to bend over; 2,071 jungle saplings were cleared around; 640 yards of fencing set up; twenty-four measures of Tamarind seed dibbled in; and one new nursery was made in the year near Manalapady Village. The cost of these works and conserving the whole place during the year was Rupees 326-7-3, apportioned among the several headings as follows: supervision, Rupees 79-6-0; upkeep, Rupees 240-13-3; fencing, Rupees 5; planting, Rupees 1-4-0. The expenditure for the year by accounts rendered was Rupees 407-14-9, which includes arrears of former year paid in 1873-74. The expenditure by accounts for the former year was Rupees 455-8-7.

The total number of trees remaining established in pits at 8 × 8 feet apart on 31st March 1874 was 14,974. The incurred cost of operations on this reserve from commencement to same date was Rupees 887-6-4.

The two last-mentioned form the southern division of the group of reserves.

A conservancy establishment of two Maistries was placed in 1869, and has been kept up since, and gradually increased as operations extended, till after the reduction in August 1873. the establishment of monthly servants employed on these five Gingee Railway Fuel Reserves numbered fifteen of the following grades: one Head Maistry at 12 Rupees; one Maistry at 6 Rupees; three Rangers at 5 Rupees each; five Gardeners at 4½ Rupees each; and five Gardeners at 4 Rupees each. None of them are on the permanent establishment list. All are paid from working charges. This reserved tract is a large and important charge, and there ought to be a more responsible person in immediate authority than a temporary Maistry on 12 or 15 Rupees a-month, as has been the case up to date. The single forester now entertained for the range has quite enough to attend to in Trinomallay Taluq alone, and he cannot superintend work on these reserves without detriment to his forest and reserve work there, and it is requisite that a forester should be entertained on the permanent list for this block of reserves solely.

To briefly summarize the operations on this group in the year under report. Among the 83,092 trees remaining at 31st March 1873, 25,028 casualties occurred ; 17,779 were replaced with fresh plants (at a cost of Rupees 124-15-7) ; 1,306 were planted in new ground ; 15,883 plantation trees were supported by stakes and ties ; 7,896 jungle trees were cleared around ; 6,546 yards of new fencing were raised ; 105 measures of Tamarind seed were dibbled in at intervals in the jungles ; land for four new nurseries was dug up, fenced, and sown in preparation for extensions prior to the stoppage of work. The old nurseries were kept up for supplying failures ; the number of plants remaining at close of the year being in round numbers only 7,500, besides 1,800 established in flower-pots, principally Koné, Katvalai, Vemboo, Munney Poongen, Nagai, and Casuarina. This small number, as I find it does not answer to keep most of the jungle trees more than six months, they get too big and the tap-root runs too deep. Comparatively, no extension was undertaken ; 3,000 Casuarina were supplied to Mercanum Plantation from Gingee Reserves. All nursery charges have been included in upkeep charges for established trees ; the actual cost of operations was Rupees 1,527-9-11 against Rupees 1,846-13-4, the expenditure for this year by accounts rendered. The expenditure for former year by account was Rupees 1,971-5-2. The receipt in this year amounted to Rupees 334-2-2. The incurred total cost of operations from commencement to 31st March 1874 was Rupees 4,543-6-0, while the number of trees existing or established in pits at same date was 77,149, the largest of which are now seventeen feet in height with a girth of nearly eight inches. The total receipts from commencement to same date were Rupees 342-7-2.

Gungavarum—Railway Reserve situated to the south of Periamoor Reserve partly in Trinomallay, partly in Villapooram Taluq. Boundaries have not yet been settled nor demarcated ; there has been no expenditure in the year ; all felling was prohibited. One of the forest peons being stationed here to enforce the order. The jungle is very dense in parts ; very fine specimens of *Acacia amara* are to be found here. In position, as in jungle growth, it is well adapted for a reserve, being on the borders of four taluqs and one Zemindari.

Moodanai—Formerly termed a local fuel reserve, but more correctly a mixed timber and fuel reserve and an Imperial Work, as the charges have been borne up to date by Imperial Funds, was formed in 1869. It is situated northeast of Chengum Depôt, five miles distant at the base of the Thanemally, whose southern and easternmost spurs are partly included in the reserve. The boundary was finally settled in 1872, when a broad belt of jungle was left around the tract immediately outside of it for free felling in, till portions of the reserve could be thrown open ; it has been demarcated and fenced on the southern and eastern sides with a strong deadwood fence of thorny bushes. A conservancy establishment of one Maistry was entertained in May 1872, and has been continued since, with the addition of one ranger from September in same year. Supplemental planting was undertaken in the same year. The principal operation in the year has been upkeep of planting of 1872, and improvement of the natural jungle by fencing in portions to protect it from cattle which are allowed to graze six months in the year, clearing rank growth from young jungle trees, and preventing cattle-herds damaging them, and other parties from felling within the boundaries, and both from setting fire to the grass. I regret to state that this last effort was only partially successful as the slopes of the Thanemalley were burned in many places by fire which occurred so late as March 1874, and which originated in the reserve ; this is much to be regretted, as fire had been prevented every year since 1869. Cattle-grazing, by keeping the grass low, tends to this end, though it is generally the herdsmen who set fire to the jungles, and it can only be by severe penalties being attached to the permission to pasture cattle within reserves, and a strict enforcement of them, that the mischief can be put a stop to. Of the 5,099 trees, consisting of Illuppey, Koné, Katvalai, and Tamarind remaining or established in pits on the 30th March 1873, 3,539 casualties occurred (which were not replaced) from scarcity of water at its greatest need, and the seedlings that came up in the ten cawnies of land ploughed in 1872 died out entirely ; 960 yards of sectional fencing were raised ; 486 yards ditto were repaired ; the cost of operations for the year was Rupees 142-8-6 chargeable as follows:

for conservancy establishment engaged in protecting from fire, felling and trespass, Rupees 82-9-0 ; for upkeep, Rupees 53-7-6 ; and Rupees 6-8-0 for fencing. The expenditure by accounts was Rupees 218-6-9 ; arrears of 1872-73 being paid in and included in this year's returns; the expenditure for former year by accounts was Rupees 220-2-2. The total number of trees remaining (of those planted in pits) at the close of the year 1873-74 was 1,560 only. The total incurred cost on this reserve from commencement of work to 31st March 1874 was Rupees 451-8-11. There were no receipts in this year.

Chinnasamudrum—In classification exactly similar to Moodanai; soil more gravelly, not so much running water, but possessing a large stone-built reservoir called Ahmanney Colum, in which water was never known to dry up till it happened in the year under report, lies northwest of Chengum Depôt, six miles close to the base of the Javadi Hills ; boundary was finally settled in 1872 ; it had been fenced with a broad ditch and embankment for four miles of boundary in 1871, at a cost, including demarcation, of Rupees 881-3-5, which was paid from Local Funds ; this is the single item of cost on these so-called local reserves paid from Local Funds. A conservancy establishment of one Maistry has been entertained from November 1871, and a little planting was undertaken along one mile of the ditch boundary ; the chief work during this year was upkeep, improvement, and protection of natural jungle as in Moodanai. Of the 14,942 plants remaining (in pits in the "Ahmanney Colum" section) on 31st March 1873, 6,300 casualties occurred ; seventy Jack Trees were planted out in a fresh bit of land; 430 yards of sectional fencing raised, and about same quantity of field-fencing repaired. The cost of operations was Rupees 164-9-7, divided as follows: supervision and protection of jungle from fire and damage by felling, etc., Rupees 72 ; for upkeep of plantation, Rupees 88-7-11 ; for fencing, Rupees 4-1-8. The expenditure by accounts rendered was Rupees 295-8-5, difference caused by arrears of 1872-73 being paid in and charged in the accounts of 1873-74. The receipts during the year amounted to Rupees 6-14-0 derived from 440 maunds of Avarum Bark collected under contract. No receipts in former years. The expenditure by accounts for 1872-73 was Rupees 295-8-5. The total number of trees remaining in pits at close of 1873-74 was 8,710. The total cost of reserve, including demarcating and fencing operations, from commencement to 31st March 1874 was Rupees 1,630-2-4.

Peringalathoor—Classed with the two foregoing, situated in Trinomallay Taluq about eighteen miles southwest of the cusbah close to the Checkady (northern branch of the Kullacurchy Hills) Hills and near the boundary of Kullacurchy Taluq and Cooramba Gounden's Jaghire. The reserve boundary was finally settled in 1872 ; one watchman on 5 Rupees a-month was temporarily placed late in the same year to check the felling of Satinwood sapplings specially, and for general conservancy. Since that time no expenditure for planting has been incurred ; but a watchman was entertained during the most urgent months of this year to protect the jungle from fire and felling, and the cost of this was Rupees 33-4-8. The expenditure by accounts was however Rupees 38-4-8, owing to wages of watchman for March 1873 being brought into them. The expenditure for former year was Rupees 5-4-0, and the total cost of the reserve from formation to 31st March 1874 was Rupees 48-8-8. No planting carried on, and no receipts accruing from.

Annandavady.—For this reserve the boundary was settled in the same year as the above, but from its position it is not needed for the supply of local demands for fuel, and from the nature of the jungle will never be fit for railway fuel ; soil is very stony and poor and excessively dry, not a drop of water is to be found anywhere in it during eight months of the year. Satinwood and Karungali is the principal growth. There have been no charges on it. It lies south of the Chengum-Singarapet Road on the confines of the district about ten miles from Chengum ; there is much jungle surrounding it, and I have recommended its being given up as a reserve from the commencement of 1874-75. The establishment entertained at the close of the year for the conservancy of the above three reserves (excluding Annandavady) in Trinomallay Taluq was one Maistry

at 6 Rupees, two Rangers at 5 Rupees each, one Ranger at 4 Rupees, and two Gardeners at 4 Rupees each. The *Acacia* trees grown from seed sown in 1871 were nearly sixteen feet high in March; the plantations on them have not had a fair trial from scarcity of funds for upkeep, and are not in good order; the natural jungle has greatly improved.

SECTION II.

C. Plantations.—Of this class of work there existed only three supported from Imperial Funds.

1. The experimental plantation adjoining Chengum Timber-yard in which twenty-eight kinds of trees, forest, jungle and avenue, have been planted to observe their growth and to teach the forest subordinates the work of a plantation; it was formed in 1871. Of the 2,380 trees established on 31st March 1873, 550 casualties occurred; all were replaced; 860 new trees planted out, the nursery kept up, the fencing around the land was repaired for a length of 435 yards; most of the trees are healthy and the bamboo seed (Central Province) sown in 1872 has grown pretty well; the cost was Rupees 61-14-11, viz., Rupees 2-12-1 for fencing; Rupees 59-2-10 for upkeep. The expenditure by accounts was Rupees 82-13-3, and for the former year Rupees 159-8-9. Total of trees established on 31st March 1874 was 3,240. Total incurred cost from commencement to same date was Rupees 345-10-1; there is waste land adjoining suitable for extension of this experimental plantation.

2. The trees planted around the timber yard at Trinomallay in 1871, shade of some sort being requisite for the timber which was sometimes brought in only partially seasoned. Of the 246 trees established on 31st March 1873, ten casualties occurred and were again replaced; the well was deepened this year at a cost of Rupees 5-5-0. The expenditure this year by accounts was Rupees 10-3-6, for former year Rupees 17-2-0. Total of incurred cost from commencement to 31st March 1874 was Rupees 42-4-0. The few trees in this planting are very healthy and fine.

3. The small plantation at Chengum Anicut, three miles from the depôt, in extent thirteen acres, extending both sides of the river, for the most part good, red soil, and on which 2,160 Casuarina were planted in 1872; but owing to want of funds these were not kept up well, and of the 1,860 remaining on the 31st March 1873, only 600 remained at the close of the official year 1873-74; the fencing was kept in repair and the naturally-grown trees protected from damage by villagers or cattle; the cost of this work was Rupees 29-15-0; for fencing, Rupees 1-9-4; upkeep, Rupees 28-5-8 by one Gardener. The expenditure by accounts was Rupees 52-7-6 caused by arrears of 1872-73; in the former year it was Rupees 19-10-0. The total incurred cost from commencement to 31st March 1874 was Rupees 81-12-9. The land is worth retaining for a plantation of Pooarasoo (*Thespesia populnea*), though from last year's drought, and the want of funds combined, but few Casuarina trees remain, and those even not vigorous.

Besides these three petty plantations supported, as above stated, by Imperial (Forest) Funds, there are in this district, under the charge of the forest officer, thirteen fuel plantations of large size, thirty-six miles of channels and tank-bund, planting which were formed with, and are now supported entirely by Jungle Conservancy or Local Funds, and much of the forest officer's time and attention having been given to these operations, it may be as well here to mention briefly the results obtained and cost of them during the year; the detail of planting operations carried on with the Local Funds placed at my disposal by the Collector of the district is given in my Jungle Conservancy Report for 1873-74; 3,661½ acres of plantation land and 7,987 acres of jungle for reserves were taken over; nine new plantations were commenced, thirteen blocks containing 3,865 acres were surveyed and mapped, and one jungle reserve, partially so; the boundary line of this reserve was most intricate, as it was formed of many semi-detached blocks in twenty-two villages, and it took two months to survey 3,009½ acres of it with a length of fifty-seven miles of boundary.

There were 143,094 trees of all ages remaining on 31st March 1873 (after deducting 1,424 trees thinned out from the older Jungle Conservancy plantation prior to that date). Of this total,

109,760 were trees planted in the year 1872 ; and among these, during the year under report, 14,063 casualties took place, which were again planted up. From the older trees, 431 were thinned out and sold, 175,721 trees were planted out in new plantations and in extension of old ones, 12,226 old trees were taken under charge which were formerly under the Salt Department and Public Works, 12,000 trees were reclaimed from jungle growth and prickly-pears.

Of the new planting, about 4,000 Katvalai Trees were washed away or buried in the mud by a fresh down the river Pooniar late in October 1873, but were replanted later when water went down ; 2,309 occurred in another part of the same plantation (near Pooniar Anicut), but from the opposite cause, viz , the hot dry weather experienced early in October 1873, and these were replaced again. In the Kanarambut Plantation a good many casualties occurred by the same flood which kept the low-lying land so wet, the roots of the trees rotted away; these were all replaced as soon as weather permitted ; all the rest of the planting was very successful, scarcely one per cent. occurring ; the plantings of 1872 had to be kept up by hand-watering, and being weakly trees, had, after every gale, to be supported by stakes and ties ; 5,000 stakes were supplied from Cuddalore Plantation, and many more were obtained from the Gingee Hill-jungles ; nineteen new nurseries were formed, four of the old nurseries kept up, some six miles of fencing (exclusive of nursery fencing) of sorts made, withy bound, bush-fencing, plain thorns, or ditch and embankment. Four cawnies of land sown with Valum seed, 107 new wells (water holes) dug ; fifty-nine of the former year's wells kept in repair ; some of which had to be deepened considerably ; 44,387 pits were dug and earthed ready for planting of 1874 in addition to those planted up in 1873, and the following temporary buildings raised ; nine watchmen's and Maistrys' huts, one Plantation Manager's Office hut. There was also one wood-shed and timber-yard opened in Munjacoopum. One ferry-boat built ; half-mile of plantation road gravelled to a width of eight feet ; 863 yards of bund, two yards wide at top and four feet high, raised ; slopes turfed, and ground adjoining planted with Nanal grass.

The expenditure on the Jungle Conservancy Reserves and planting operations in the year by accounts rendered was Rupees 15,955-15-2 ; for former year was Rupees 5,233-15-1 ; the amount realized by sales of wood, nursery plants, etc., from Jungle Conservancy plantations during the year was Rupees 532-13-9. In the former year was Rupees 128-8-1.

The total number of trees established on 31st March 1874 in pits at distances of 8×8 feet and 12′×12′ for plantations, and twenty-four feet for channels and tank-bunds, were 342,610 including the 12,000 young trees reclaimed from prickly-pear and thorny jungle on channels and tanks in the year. These three and-a-half lacs are mostly Casuarina, with Katvalai, Valum, and other quick-growing jungle trees grown in much smaller quantity in those corners of ground more specially suited for them than for Casuarina. The seven cawnies of Valum grown from seed dibbled in are not included in these figures ; nor are the 60,000 Palmyra nuts which were planted around sections and boundaries of Mullatar Plantations.

The actual incurred cost of the above Jungle Conservancy operations in the year was Rupees 19,962-12-5, divided as follows : supervision by Managers, Maistries and Watchman, Rupees 2,298-2-5 ; upkeep, Rupees 14,250-3-6 ; felling and transport to Market, Rupees 329-11-3 ; fencing, Rupees 153-14-6 ; planting, Rupees 2,085-12-7 ; survey and demarcation, Rupees 411-9-0 ; tools, repairs to and extra petty charges, Rupees 433-7-2. This last includes cost of building ferry and repairs to large Government boat purchased by the Collector for plantation use.

The allotment for the year was Rupees 18,358 ; the difference between the charges incurred and the charges audited by accounts (Rupees 15,955-15-2) is to be explained by Rupees 2,420-9-8 of the allotment remaining undrawn under instructions from the Collector at close of the year, and the accounts for wages due for March 1874 (as in usual course) not being drawn up till the beginning of April, and thereby becoming a charge on the new year's allotment.

SECTION III.

Forests worked under License and Voucher System.—The Receipts for the year from seigniorage on licenses were Rupees 3,880-2-6, in last year they were Rupees 2,686-4-6; in 1871-72, they were Rupees 3,033-13-0. The increase is attributed to fewer free passes being granted and stricter conservancy of the open forests. The budget estimate for this item of receipts was Rupees 3,350, the regular estimate Rupees 3,000. There were no disbursements from working charges for the collection of this revenue. The establishment of peons entertained for checking the removals from forests on licenses or otherwise, being all permanent servants and paid from allotment for B. Salaries of establishment.

Results of License Removals.—As an entirely different class of wood is removed by licensed fellers or woodcutters than brought out by departmental agency, these cannot be well compared with the departmental felling; but there is scarcely any doubt that the system of licensed felling pays better than departmental felling for the first few years before the forests get exhausted as they must do, if, as is now the rule, there is no restriction to the quantity of passes issued. In some districts where the system is still in force, every kind of tree is permitted to be felled at the pleasure of the license-holder. In this district, only jungle or white-wood, the inferior classes of timber in fact, are allowed to be felled by the public; but it would be better in the end, I think, if this half and half-sort of system was stopped, and no licenses except for firewood and Avarum Bark (*Cassia Auriculata*) issued, and people required to purchase from the Government timber-yards junglewood and bamboos as they now do logs of the better classes of timber; but it would be essentially requisite for the adjoining ranges to be worked on the same plan; great difficulty is now and ever has been experienced in preventing parties cutting down 1st and 2nd-class trees in South Arcot Jungles under protection of licenses obtained in the next district. The articles of forest produce from which the seigniorage of Rupees 3,880-2-6 were realised are—1,557 bandy-loads of junglewood, eighteen bandy-loads of Satinwood (1st-class wood allowed to be felled on head-load permits for agricultural purposes only), 815 bandy-loads of Avarum Bark (much used in tanneries), thirteen bandy-loads of Velvalum Bark used in distilleries, about 231 bandy-loads of fuel (fifty of which was charcoal-burnt in the jungle and removed by basket or head-loads), and 1,673 bandy-loads of bamboos. The seigniorage derived from the fuel (including charcoal) removed in the year on licenses was Rupees 208-4-0, the value (at seigniorage rates) of the 218 bandy-loads of firewood removed on free passes in the year was Rupees 208-10-0, together the quantity thus removed would not be sufficient for more than ninety ordinary families for the year; and as it is the custom to allow head-loads of junglewood or deadwood to be taken away free without pass or hindrance whatever, it is obvious free passes for fuel are not necessary and may be done away with, without distressing the people, and that the 1-Rupee rate of seigniorage on fuel, lately the subject of orders by the Government, however much it might have been felt by a few conscientious parties who considered it right to obtain passes before proceeding to fell firewood, could not have effected the body of the inhabitants of Trinomallay Taluq in the slightest degree. I am in a position to state that the free head-loads of firewood brought into the cusba town of Trinomallay are equal to seven bandy-loads of wood per diem or say three tons of fuel; and I estimate the removals of fuel from the village jungles of the taluqs under Forest Conservancy for home consumption to be equal to 47,267 bandy-loads per annum, exclusive of fuel for the manufacture of iron, indigo, sugar, and arrack, etc. The seigniorage derived on the thirteen bandy-loads of Velvalum (*A. leucophlæa*) Bark removed on license does not show a tithe part of the actual removals from the Government jungles; the consumption of this bark in the distilleries in this district amounts to quite 500 bandy-loads per annum, and owing to the facility with which it can be obtained from the Trikalore, Villapooram, Kullacurchy and Virdachellum Taluqs without payment of the seigniorage of Rupees 2-8-0 per load placed on it in taluqs under Forest Conservancy and the good price it realizes, both tree* and the bark is becoming scarce in those taluqs not conserved. The remedy lies in bringing all taluqs under Conservancy Rules and enforcing the rules (whether

* Acacia leucophlæa.

forest or local it does not much matter) by the aid of other officials than village authorities. One of the new Jungle Conservancy Plantations (Valoor Plantation) has been commenced with the object of growing Velvalum for meeting in a small way the demand for this bark, as it is feared, unless conservancy is enforced, the natural jungles will not supply this article much longer. I included Kullacurchy with taluqs where this bark was brought from without payment of seigniorage, as the Subordinate Forest Conservancy establishment is not strong enough to allow of men being placed to guard the Government jungles in it; and owing to this and to their proximity to the Poligar's jungles, much produce is removed without payment of the seigniorage fees.

SECTION IV.

Yield of Forests.—The total yield in round numbers in the year was 34,975 cubic feet of timber, 1,699 bandy-loads of bamboos, 35,512½ maunds of minor produce, including 2,702½ maunds from reserves, and 413 tons of fuel, including 195 tons of deadwood from fuel reserves which was collected by contract under departmental supervision and sold at Pondicherry. In last year the yield was 21,944 cubic feet of timber, about three-fifths of the quantity removed and checked this year; 1,468 bandy-load of bamboos, about one-eighth less than this year; 375 tons of fuel (no deadwood or other fuel was sold from Gingee Fuel Reserves last year); 34,518 maunds of minor produce. In the two last items there has also been some increase. The above figures include the known removals by registers of confiscations, departmental fellings, free pass removals removed on licenses and tickets, collections of deadwood, etc., from Gingee Reserves. The removals of fuel by head-loads free without license or hindrance from village jungles, compared with which the registered removals do not amount to a hundredth part, and which are estimated to be over 20,000 tons for the annual home supply of the two taluqs under Conservancy, are not included.

SECTION V.

Financial Results.—The financial results for the year compared with the former years are improved, inasmuch as (Rupees 5,609-7-3) the receipts from the forests, including the value of timber supplied to Public Works Department, are proportionally greater for the expenditure (which was Rupees 2,017-5-6, excluding charges for plantations and reserves, the Executive Officer and his office establishment's pay and allowances, and office contingencies) by 61 per cent. than were receipts (Rupees 4,100-0-9) for last year in comparison to the outlay (Rupees 1,889-9-9, the charges for reserves, etc., being excluded in the same manner). The receipts from forests deducting revenue from reserves, Rupees 341-0-2 for the year, are quite 261 per cent. greater than the outlay on timber operations including the subordinate conservancy establishment; and it would appear from this the range is being worked at a considerable profit even taking into account the decrease in value of timber in hand at close of this year compared with that in hand at close of last year; though, if the total of receipts (*plus* value of timber supplied to Department Public Works) is compared with the total expenditure on both working charges and establishments, it shows a balance against the forests of Rupees 4,429-2-2 for the year. I do not include the charges for reserves and plantations when instituting a comparison between receipts and charges, as they are an extraordinary charge (not a forest operation) which will not become remunerative till some years have elapsed, and if the large expenditure on them is debited entirely to the forests, it would swamp them at once. In the same way the attention of the Forest Officer being given to Jungle Conservancy and Imperial Fuel Reserves and Plantations equally with Forest Conservancy and timber operations, it would not be fair to debit the forests with his whole salary and allowances.

The allotment for working charges was Rupees 3,700; there remained Rupees 77-1-6 unexpended at the close of the year, as contemplated timber operations were not fully carried out, owing to sickness of the establishment and changes of employés, and in consequence only about half of the allotment was expended. Considerable arrears on reserves of the former year had to be cleared off from this year's allotment, and a loan (Rupees 275) from Local Funds for reserves had

also to be refunded (in July 1873); this brought the Rupees 2,000 (too little originally for the Gingee Reserves alone) very short, and the expenditure exceeded the allotment by Rupees 544-9-5. The available balance from timber operations and a portion of the allotment (Rupees 100) for communications being devoted to reserves, as their upkeep was essentially necessary. The proposal for their transfer to local works made in the former year was not accepted, and the whole charges on them were borne by Imperial Funds. On timber expenses in this year, Rupees 713 were expended against Rupees 509 in the former year. A few tools comprising ripping and cross-cut saws, axes, morticing chisels and augurs were purchased for Rupees 35 to facilitate felling and dragging operations. A small expenditure of Rupees 20-5-8 was incurred on forest improvement. In last year this charge amounted to Rupees 87-9-2, and a further sum of Rupees 2½ was expended on the collection of specimens of the indigenous forest trees; 6 Annas was the charge on this head last year. A few maunds of minor produce were collected departmentally at a cost of Rupees 5-1-0. The departmental collections under this head were of more importance in the former year and the charge was Rupees 49-1-0. On reserves and plantations this year, Rupees 2,544-9-5 were expended. In last year, Rupees 2,791-13-11. The incurred cost differs from these totals; it is given in detail in Section II.-B. of this report. A small return was obtained from reserves by clearing out and selling the deadwood by contract; this work could be extended with advantage were more funds provided.

SECTION VI.

General Remarks.—The item of Rupees 10 credited to fines was the sum deposited as security for fulfilment of a felling agreement which lapsed to Government. A sum of Rupees 129-8-11 was credited to forests under heading of Confiscations, while Rupees 171-9-2 was the sum actually paid into Treasury; but the difference, Rupees 42-0-3, was by oversight credited to Miscellaneous Receipts and observed too late to rectify. In the budget estimate, Rupees 150 was entered as receipts for confiscation; this was reduced to Rupees 100 in the regular estimate. In last year, the receipts credited under this head were Rupees 80-7-2; the increased receipts do not of necessity show an increase of smuggling, but rather that more cases were detected or brought to the notice of the department, though it is to be feared the late order prohibiting prosecutions by the Forest Department without previous sanction of the Collector will tend to the increase of smuggling from immediate action on detections or arrests not being possible. The number of forest offences detected in the year was forty-one. Of these, thirty-one were decided departmentally by confiscation of the timber, etc., felled in breach of rules; nine cases were prosecuted before the subordinate magistracy, and one case of cattle trespass was punished by the exclusion of the herd of cattle from the reserve for one month, and by pounding of some of the cattle. Of the nine cases prosecuted, six were for mischief (one of these by firing jungle), and three for theft. The result was two dismissals and seven convictions. In one case, the first defendant in it appealed to higher court when the original sentence (a fine of 35 Rupees) was annulled, and the fine levied ordered to be refunded; nineteen persons were prosecuted, five of whom were discharged; of the rest, the longest term of imprisonment was one month simple, the heaviest fine (excluding the fine of Rupees 35 remitted) was 10 Rupees. The total of fines levied amounted to Rupees 54½. One felling-contractor's agreement was cancelled for bad conduct and acting in disregard to conditions laid down. Another wood-contractor was prosecuted for an attempt at smuggling.

The health of the establishment was bad during the first-half of the year. The forester, K. Ramiah, was unable to do his duty owing to fever, which hung about him, till at last in June he had to take sick leave, but his death occurred in the second month of leave. A Pygust from the North Arcot Range was given the acting appointment temporarily, but he could not do much more than protect the forests and jungles from smuggling, not being acquainted with felling operations or the hill forests of this district. He was very energetic however in prosecuting smuggling, and has been since appointed Jungle Conservancy Manager of Plantations which was more in his line. A Magisterial Clerk was appointed forester on the 16th August 1873 from the Collector's Office, who, though a very intelligent person, was comparatively untrained and requir-

ed time before he could carry on the operations contemplated earlier in the year. When there is one forester only in a range, his sickness will always curtail timber operations sadly. The number of servants who obtained sick leave were five ; the aggregate of sick leave granted was 9 months and 25 days ; other leave 10 months and 15 days. The punishments inflicted were as follows: one Pygust was reduced to grade of Peon ; one Peon suspended for two months ; one Head Maistry suspended for two months ; one Reserve Maistry dismissed ; one Reserve Ranger dismissed ; two Peons' resignation accepted ; and the establishment fines for the year (temporary establishment also included) amounted to Rupees 31-11-0. Promotions and appointments, etc., were two Peons newly appointed ; one promoted from lower to senior grade ; one Pygust appointed ; one Peon transferred to be Depôt Gumastah ; two Head-quarter Office Clerks were appointed substantive *pro tem.* in lieu of the permanent incumbents who were transferred with Collector's approval to the Jungle Conservancy operations ; one as Manager of plantations, the other as Jungle Conservancy Clerk in my office, pending an increase of pay being sanctioned for Clerks.

The free felling on passes has been checked pretty effectively this year ; the issue of free passes having been trifling when compared with former years. One Peon having been told off to do this special duty. The free passes are printed in triplicate with the intention that one should be given to the party, one be immediately sent to the Forester's Office, and one be retained in the issuing or Tahsildar's Office ; and if this plan was carried out, the Forest Department would have no difficulty, provided the conservancy establishment was moderately strong to check the free felling. Some improvements in the administration were effected ; amongst them were, deputing one Peon for special duty, withdrawing the Peons (permanent establishment) from Kullacurchy Tannahs and placing them in charge of forests, altering the system of timber-felling which formerly was carried on through contractors, and now is by woodcutters engaged by the department and paid for their day's work under supervision of one or more of the conservancy establishment, and the hire of carts for transport upon agreement between the forester and the villagers direct instead of between a contractor and villagers. The results are shown by the better class of wood and larger logs that are brought to market ; better classification of logs after arrival to depôt ; the restriction of charcoal-burning to certain jungles ; the inclusion of more timber trees into the reserved list ; the slightly improved supervision of jungles and forests generally ; but the establishment is far too weak to patrol these as they ought to.

Fire has not occurred in three out of the four tracts of heavy forests in the Trinomallay Taluq. Free passes for firewood as before stated are scarcely requisite, except for special cases of destruction by fire, as, without taking into consideration the reduced rate of seigniorage now levied for a bandy-load, the privilege of removing head-loads free suffices for the household and agricultural wants of villagers (the comparison between the licensed removals and the free removals on head-loads instituted earlier in the report prove this), and free passes for fuel for manufacturing purposes should not be given, as the ryots invariably take the wood to mill-owners and manufacturers on a large scale, who make it their business, instead of manufacturing themselves.

The people now seem to look upon the Forest and Jungle Conservancy as a thing to be ; and I have heard of no complaints against the department or its working that have stood the test of investigation. Cattle-owners and graziers are the worst grumblers, and, though goats should be excluded entirely from young forests or reserves, yet as cattle themselves, I feel certain do not commit one-quarter the damage imputed to them, they might be admitted in times of scarcity of pasturage to all but the young plantations, if the herdsmen be bound under heavy penalties to keep to the rules laid down for their observance. Some instances of claims by Inamdars and Puttadars to land in Gingee Reserves occurred ; these were settled by giving up the land when it adjoined the boundaries and by giving other land in compensation when the land claimed lay well within the reserve. The Gingee Reserves and all others require to be surveyed and mapped, and boundaries distinctly marked ; it was contemplated to begin this necessary work with the year 1874-75. Owing to the unhealthiness of the Chengum Jungles, the Checkady Forests were most

worked this year, and the forester held his office mostly in Trinomallay. This town is more suited to be the forester's head-quarters than Chengumma, and, as there is no building of any sort in the depôt, it is contemplated to erect a store-shed and office combined, and extend the depôt by purchasing a small building-lot adjoining its southern wall. The pay of the two Forest Office Clerks (12 Rupees per month each) is very low, and the G. O. of 27th May 1873, enabling Clerks to draw batta when travelling with the forest officer, was felt to be a great boon.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) H. L. WOOLDRIDGE,
Deputy-Conservator.

TRICHINOPOLY COLLECTOR'S OFFICE,
22nd September 1874.

No. 234.

From

J. B. PENNINGTON, ESQ.,
Acting Collector and Conservator of Forests.

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue.

SIR,—I have the honor to report on the administration of the Forest Conservancy in this district for the Official year 1873-74.

2. The detailed report and its accompaniments furnished by the Assistant Conservator are herewith, forwarded, and I shall here confine myself to noticing the principal features of the administration.

3. The receipts of the year amounted to Rupees 1,179 against the Budget Estimate of Rupees 8,000 and actual collections last year amounting to Rupees 489.

4. The annexed abstract gives the particulars :—

Items.	CURRENT YEAR'S RECEIPTS AS COMPARED WITH THE BUDGET ALLOTMENT.				CURRENT YEAR'S RECEIPTS AS COMPARED WITH THOSE OF THE PRECEDING YEAR.			
	Budget Allotment.	Receipts.	Increase.	Decrease.	Last year.	Current year.	Increase.	Decrease.
I. Sale of Timber and Sandalwood brought to Depôt, by Government Agency	6,000	...	...	6,000	...	...	...	...
II. Sale of Timber, Firewood, Bamboos and Charcoal removed from the Forests by purchasers including seigniorage	...	1,079	1,079	...	394	1,079	685	...
VI. Sale of Fruits, Babool pods, and other minor Forest produce...	...	9	9	...	21	9	...	12
IX. Miscellaneous receipts, value of timber supplied to Public Works Department	2,000	91	...	1,909	74	91	17	...
Total ...	8,000	1,179	1,088	7,909	489	1,179	702	12

5. At the time of the preparation of the Budget, the sum of Rupees 8,000 seems to have been roughly calculated upon from the sale proceeds of the clearings of Forest lands, but land not having been taken up to the extent expected, the actual collections fell considerably short of the estimates.

6. Compared with the figures given in the Statement that accompanied the Board's Proceedings, Forest No. 4, dated the 27th January last, the receipts and charges as particularized in the report forwarded with my letter No. 94, dated the 28th May 1873, differ as shown below, and I have not been able to trace the cause of the difference, but I have, in comparing the results of the year

under report with those of the year immediately preceding it, deemed it expedient to adopt the figures as given in the Assistant Conservator's report forwarded with my letter No. 94.

Receipts of 1872-73.			Charges of 1872-73.		
Items.	As per Board's Proceedings.	As per Assistant Conservator's Report.	Items.	As per Board's Proceedings.	As per Assistant Conservator's Report.
				Rs.	Rs
Sale of Timber and Firewood, etc.	573	394	Conservancy and Working Timber expenses for felling	10	10
Sale of Fruits, etc., etc. ...	32	21	Purchase of Cattle, etc. ...	25	88
Miscellaneous Receipts ...	68	74	Plantations	8,360	8,607
			Commissions and Buildings Amount refunded into the Treasury	177 28	30 ...
			Total ...	8,600	8,735
			Establishment.		
			Executive Officers	4,147	4,105
			Office Establishment ...	540	540
			Travelling allowances of Executive Officers	2,571	1,360
			Do. of Subordinate Establishment	135	135
			Sundries	90	66
Total ...	673	489	Total ...	7,483	6,206

7. The Forest Revenue of the year amounted to Rupees 2,021, of which Rupees 1,179 was realized during the year, and Rupees 480 has since been collected. There is still an outstanding balance of Rupees 362, and this sum will shortly be recovered. The annexed abstract gives the particulars.

Names.	Collected in 1873-74.	Collected up to date.	Balance outstanding.	Total.	Remarks.
Elamanore	107	52	.....	159	
Kulitalai	6	20	.....	26	
Lalapettei	679	36	351*	1,066	* Due by the Railway Company.
Chithalavai	139	64	.....	203	
Sekkanam	225	308	.....	533	
Kutlai	20	.....	11†	31	† Will shortly be recovered.
Refund	3	.....	.....	3	
Total ...	1,179	480	362	2,021	

8. The expenditure on works amounted to Rupees 6,769 falling short of the Budget Allotment by Rupees 1,233 and of the last year's expenditure by Rupees 1,967. This is partly accounted for by the fact that the original Budget allotment was only Rupees 6,000, and the Supplemental allotment of Rupees 2,000 came too late to be economically utilized.

9. The annexed abstract gives the particulars of expenditure :—

Items.	Current Year's Expenditure as compared with the Budget Allotment.				Current Year's Expenditure as compared with that of the preceding year.			
	Budget Allotment.	Expenditure.	Increase.	Decrease.	Last Year.	Current Year.	Increase.	Decrease.
	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Timber expenses for felling, cutting, clearing, sawing, and the transport of Engine firewood by land or water to Depôt, also charges for storing, securing, watching, felling, and arrangements for selling, etc.	...	276	276	...	10	276	266	...
II. Purchase of Elephants, Cattle, Dead stock, Tools and Plants ...	1,000	121	...	879	89	121	32	...
VI. Plantation	6,000	6,356	354	...	8,607	6,356	...	2,251
X. Communication, Building and minor works, Fences, Boundary pillars and posts, and boundary paths...	1,000	16	...	984	30	16	...	14
Total ...	8,000	6,769	630	1,863	8,736	6,769	298	2,265

10. The cost of plantations exceeded the Budget provision by Rupees 354, and this excess was met from the savings under the allotments mentioned in the margin, which have not been fully utilized during the year.

For the purchase of cattle and dead stock, etc.
For communication, buidings, and minor works, etc

11. The Forest Reserves and Plantations in this district were as follows :—

1. Lalapetei (Reserve.)
2. Tenemalai (Reserve.)
3. Elamanore.
4. Kulitalei.
5. Chithalavai.
6. Kutlai.
* 7. Sekkanam.

12. The income derived from each plantation and the expenditure incurred thereon, are exhibited in the annexed comparative abstract.

Names.	Receipts.		Expenditure.		Remarks.
	1872-73.	1873-74.	1872-73.	1873-74.	
	Rs.	Rs.	Rs.	Rs.	
Lalapetei	.....	1,067	842	740	
Tenemalai	.....	.....	539	90	
Elamanore	341	159	2,401	1,654	
Kulitalai	138	26	1,745	1,456	
Chithalavai	10	203	1,032	1,339	
Kutlai	.....	31	1,094	884	
Sekkanam	.....	532	.....	.....	
Refund	.....	3	.....	... ..	
Total ...	489	2,021*	7,653	6,163	* Including the outstanding sum of Rupees 841.
			1,082	606	Pay, etc., of Overseer, Writer, and Peon.
			8,735	6,769	

* This was taken up during the yea.

13. The operations connected with each plantation are fully detailed in Mr. Hadfield's report, and the work executed consisted chiefly in clearing brushwood and prickly-pear, extending and improving plantations and nurseries, sinking new wells and repairing old ones, digging pits and planting, weeding and pruning plants, fencing, re-placing casualties, watering plants, collecting seeds, and felling trees.

14. The annexed comparative abstract shows the expenditure incurred on account of the Forest Establishment in this district.

Items.	Current Year's Expenditure as compared with the Budget Allotment.				Current Year's Expenditure as compared with that of the preceding year.			
	Budget Allotment.	Expenditure.	Increase.	Decrease.	Last year.	Current year.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
2. Pay of Executive Officer	3,000	1,753	...	1,247	4,105	1,753	...	2,352
3. Do. of Office Establishment ...	288	...	...	288	...	...	...	...
4. Do. of Forest Conservancy Establishment	3,720	...	...	3,720	540	...	...	540
2. Travelling allowance of Executive Officer...	1,800	1,201	...	599	1,360	1,201	...	159
3. Do. of Subordinate Establishment	540	...	...	540	135	...	...	135
1. Stationery...	...	1	1	...	...	1	1	...
2. Office-rent, Carriages of tents, and Office Records	...	14	14	...	...	14	14	...
4. Sundries	252	27	...	225	66	27	...	39
Total ...	9,600	2,996	15	6,619	6,206	2,996	15	3,225

15. There were no cases of theft in the tracts under the Forest Conservancy administration, and the list sent in with my letter to Government, No. 11, dated 17th April 1874, was of what are called "Poramboke thefts" or thefts of trees from Government waste land not specially reserved for Forest operations.

16. I have visited the plantation from time to time, but kept no memo. of the number of visits paid.

17. "Permit Fees," "Removal of Fuel Free of Payment," and the "License System," adverted to in paragraphs 17, 25 and 27 of the Board's Proceedings, Forest No. 4, above quoted, have no application to the Forest Department, etc., in this district, all our jungles away from the lines of Railway being under Jungle Conservancy Rules and reported on separately.

Enclosure No. 1.

Elamanore, 30*th April* 1874.

ANNUAL REPORT.

From

G. HADFIELD, Esq.,
Assistant Conservator of Forests.

To

J. B. PENNINGTON, Esq.
Acting Assistant Collector and Conservator of Forests.

I have the honor to submit the Annual Administration Report for the Trichinopoly Plantations with the usual Accounts accompanying for the official year 1873-74.

SECTION I.

(*b.*) Inspection tours of Range Officers.

I took charge of the district on the 29th May 1873 and was absent from Head-quarters on inspection for a period of eight months. During my stay at Head-quarters, the Elamanore Plantation, and during the former period, the other four plantations of Kulitalai, were constantly visited, the Vettuvoithalei padugai twice, to shoot wild cattle, the Putchamullays twice, the first time to inspect certain disputed land, as requested by the Conservator in company with him, the second to ascertain the Forest products as required by Proceedings of Government; the Udaiyarpalaiyam plantations thrice, and the Manaparia Division and the Coleroon north and south banks once each.

SECTION II.—Reserves.

A.—Reserved Forests.—None.

B.—Fuel Reserves.

2. *Lalapetei.*—50 square yards of prickly-pear were cut and burnt, and 3,740 square yards of land were cleared of brushwood, 22,370 pits were dig into which were put 13,470 *Acacia Arabica* seeds, 100 *Albizzia Lebbek* seeds, and 8,800 *Acacia Arabica*, plants; 7,360 casualties were replaced with *Acacia Arabica* seeds—4,409 plants were pruned, and 20,650 plants were weeded. Three wells were sunk, and old wells were repaired. Fifty lineal yards of temporary fence were formed, and 150 square yards of land were dug, and fourteen beds were formed and sown with Casuarina seeds, 669 measures of seeds were collected, of which only nine were *Azaderachta Indica*, and the remainder *Acacia Arabica*—324 cubic yards and 22½ feet of *Acacia Arabica* trees were felled by this department, and 77 tons and 987 pounds of the said trees by a contractor. Plants average one foot in height. The receipts of this year amount to Rupees 1,066-11-9, and the expenditure to Rupees 739-9-1, of which Rupees 114-8-10 were spent on establishments, against Rupees 841-14-4 last year. There was no felling last year, hence the increase in receipts (Rupees 1,066.)

3. *Tanimalay.*—In this reserve there was neither planting nor felling; it is simply preserved by a peon on a monthly salary of Rupees 6 for the future requirements of the Southern Extension of G. S. I. Railway. The expenditure of the year amounts to Rupees 90 against Rupees 539-10-6 last year. The falling off in the expenditure of this year is accounted for by no work having been carried on in the reserve, and no establishment having been kept up, except the peon in charge.

C. Plantations.

Elamanore.—147 acres and 1,210 square yards of land were cleared of brush-wood. 213 beds were formed and sown as follows; viz., forty with Casuarina, forty-eight with *Cassia florida*, seven with Bastard Teak, seventy-four with *Acacia Arabica*, thirty-six with *Acacia Leucophlœa*, four with Banian, and four with Peepul seeds. 23,540 pits were dug and 29,400 plants of *Acacia Arabica* were put out, 15,540 Casualties were replaced, of which 540 with *Inga dulcis*, 1,800 with Casuarina, and 6,600 with *Acacia Arabica* plants, and 6,600 with *Acacia Arabica* seeds. 832 Plants of different sorts, such as, Banian, Bastard Teak, *Inga dulcis*, *Cassia florida*, Peepul, etc., placed in baskets were supplied to the Central Jail and the Trichinopoly Municipality. 285,000 pits were cleared—12,665 plants of *Acacia Arabica* and *Inga dulcis* were pruned, and 6 acres were brought under picottah watering. One well was sunk, and old wells were repaired, forty measures of *Cassia florida*, and 166 of *Inga dulcis* seeds were collected. Nursery beds were weeded, 45 cubic yards and 9 feet of *Glabra* and *Cassia florida* trees by the department, and one ton and 1,893 pounds of *Cassia florida* trees by a contractor were felled. The plants measure from 8 to 24 inches in height. The revenues and charges of this year amount to Rupees 159-1-1 and Rupees 1,654-2-4, of which Rupees 142 were spent on establishments, against receipts and expenditure of Rupees 340-10-0 and Rupees 2,400-13-8 respectively last year. The difference between the receipts and expenditure of the past and present years is

accounted for as follows: a large amount was spent in clearing brushwood, and the proceeds credited.

Kulitalai.—Forty-five acres and 1,701 square yards of land were re-cleared of brushwood, 111 beds were formed and sown, of which, ninety-nine with Casuarina, ten with *Acacia Arabica*, and two with *Inga dulcis*. 106,446 pits were dug, of which, 103,356 were sown with *Acacia Arabica* seeds, and 3,870 with Casuarina plants. 9,906 casualties were re-placed, of those, 800 with *Acacia Leucophlœa*, 1,740 with *Inga dulcis*, 1,600 with *Acacia Arabica*, and 2,936 with Casuarina plants, and 2,830 with *Acacia Arabica* seeds. 2 Acres and 660 square yards of land were dug and earth loosened for Casuarina. 9,150 Plants of *Acacia Arabica* and *Inga dulcis* were pruned, and 19,345 pits were weeded; 6 Acres and 1,520 square yards of land were brought under picottah watering, 885 lineal yards of permanent and temporary fences were formed, and 590 yards of permanent and temporary fences were repaired; twenty temporary wells were sunk, and old wells were repaired; 278 measures of seeds were collected, of which, 174½ measures were *Acacia Arabica*, 53 *Acacia Leucophlaea*, 4 *Albizzia Lebbek*, 120 *Pongamia Glabra*, 9 *Kadambei*, 16 *Azadirachta Indica*, and 1½ *Eluppei*, for the Mauritius Government. The plants measure from 8 to 24 inches. The receipts and disbursements of the year come to Rupees 26-4-0 and Rupees 1,456-7-9 (inclusive of Rupees 158-4-2 for establishments); while those of the previous year are Rupees 138-8-0 and Rupees 1,745-10-11 respectively. With regard to the differences—*vide* explanation given to Elamanore plantation:—

Chithalavai.—Forty-five acres were cleared of brushwood and 3,475 square yards of prickly-pear were cut and burnt. 142 beds were formed and sown, of which 104 with Casuarina, thirty-three with *Acacia Arabica*, two with *Acacia Leucophlœa*, and 3 with *Cassia florida*, 87,846 pits were dug; of these 75,681 were filled with *Acacia Arabica*, and 2,500 with *Acacia Leucophlœa* plants, and 550 with *Acacia Leucophlœa*, 8,525 with *Acacia Arabica*, and 590 with *Albizzia Lebbek* seeds. 141 lineal yards of permanent fence were constructed, and 343 measures of *Acacia Arabica* seeds were collected; 5,220 pits were weeded, and 43 cubic yards of *Pongamia Glabra* trees were felled. Plants average in height 1½ feet. The receipts of this year are Rupees 202-11-9 and expenditure Rupees 1,338-13-2, of which Rupees 135-15-11 were paid as salaries; whereas the amounts of last year are Rupees 10, and Rupees 1,031-12-5 respectively. The increase in both the items of this year is due to the clearing of the padugai and to the proceeds being credited to this year.

Kutlai—8,445 Square yards of prickly-pear were cut and burnt, and 128 measures of seeds were collected, of which 37 *Azadirachta Indica*, and the remainder *Acacia Arabica*—175 beds were formed and sown, viz., thirty-two with Casuarina, 131 with *Acacia Arabica*, eight with *Azadirachta Indica*, and 4 with *Emblica Officianalis*. 16,000 pits were dug and planted with 9,230 *Acacia Arabica*, 1,160 *Albizzia Lebbek*, 660 *Cassia florida*, and 1,400 with *Acacia Arabica* seeds. 14,910 casualties were re-placed, of which, 11,010 with *Acacia Arabica*, 200 with *Albizzia Lebbek*, 2,600 with *Acacia Leucophlœa*, 1,000 with Covaly, and 100 with *Cassia florida* seeds. 31,700 Pits were weeded, and 2,700 plants of *Acacia Arabica* were pruned. 1,875 lineal yards of permanent fence were constructed, six wells were sunk, and old wells were repaired. The plants range from 7 to 15 inches. The receipts and expenditure of the year under report including Rupees 63 for establishments, are Rupees 31, and Rupees 883-12-9 against an expenditure of Rupees 1,093-12-8 during the last year. The short expenditure in this year is due to less being paid as salaries, as the plantation was in charge of a head cooly during the current year.

Udaiyarpalaiyam Plantations.—These are situated on the banks of the Coleroon and some other channels, and their cost is defrayed out of the Jungle Conservancy Fund, but they are supervised by this department—100,391 pits were dug, of which 7,886 were filled with *Tamarindus Indicus* seeds, 89,834 with Palmyrah nuts, 400 with Tamarind plants, 1,467 with

Bamboo, 335 with Mango, 112 with Casuarina, and 357 with Eluppei plants. Almost all these pits were provided with bunds to hold water and protected by fencing. The expenditure on account of working charges is Rupees 3,726-11-5, that of establishment Rupees 632-1-7, and Miscellaneous Rupees 331-7-11 aggregating to Rupees 4,690-4-11.

SECTION III.

Forests worked under License and Voucher system.

Putchamullays.—This is worked by the Revenue Department and the proceeds credited to the Jungle Conservancy Fund.

SECTION IV.

Yield of Forests.

469 Tons and 2,155 pounds of *Acacia Arabica* and *Leucophlœa Pongamia Glabra*, and *Cassia florida* trees were felled by this department and the Contractor together in this year.

SECTION V.

Financial Result.

The total receipts of the year from the sale of firewood above said at Checkonum, besides the places already named, and from the renting of grass and nanul, etc., amount to Rs. 2,021-5-10 (against Rupees 489-2-0 last year) of which Rupees 1,179-10-8 is accounted for in Form A accompanying, as having been realized, and the balance Rupees 841-11-2 remains outstanding. The total expenditure under different heads as per Registers B and C accompanying amounts to Rupees 9,762-3-7, viz.,

	Rs.	A.	P.
Working charges of different Forest Plantations and Reserves.	5,459	0	2
Pay of Maistries, etc., under Do. do.	703	12	11
Pay and Railway Fare of Overseer, Writer and Peon under Reserve	387	10	0
Miscellaneous	215	6	6
Pay and Travelling allowance of the Officer in charge	2,953	13	11
Contingencies...	42	8	1
Total ...	9,762	3	7

against Rupees 15,041-11-7, in the previous year. Deducting the revenue, there is still a deficit of Rupees 7,740-13-9 against the year; but of this amount, a sum of Rupees 150-15-6, being the pay of the Acting Forest Overseer from the date on which he was detached to supervise the Jungle Conservancy Fund Works, paid out of Forest Funds, has been debited to the former item; it should be recovered from the same and refunded to the latter—consequently the amount deficient is only Rupees 7,589-14-3. The increase in receipts during the current year is due to the felling operations carried on both at Lalapettai and Checkonum, and the decrease in expenditure is accounted for thus: the pay of the permanent officer Mr. Morgan during the past year was charged to this district for the time he was on leave and while he was detached on special duty to Nilambore; and further the mileage for the Acting Overseer was disallowed in this year. Hence is the difference.

SECTION VI.

General Remarks.—The above plantations were watered throughout the year except during the rainy season. Even the plants of two years standing required to be watered owing to the unusually hot season, and the excessive number of casualties is accounted for in the same manner. The plants average two feet in height, and they are in good condition. A Notice published in the District Gazette by the Conservator as the District Magistrate, requiring the destruction of wild cattle found in Government plantations, has altogether put a stop to the

serious nuisance of cattle trespass often complained bitterly of. The want of an Overseer and a Writer as reported by my predecessor in last year's report is much felt. The Inspector of Forests was at the Elamanore Plantation towards the close of the year, and remarked that the planting was not carried on there as he originally proposed. Consequently, I intend selecting another block in which to carry out his wishes. Health of the establishments was good: a Maistry in Udaiyarpalaiyam Plantations died of Dysentery. Conduct of the subordinates on the whole good, except that of a maistry and watcher removed from the service. I presume that there have been no breaches of Forest rules, as I received no Returns from the Magistrates. The system of allowing "Free passes" is, I hear, carried on in the Putchamullays and Udaiyarpalaiyam Jungles through the Revenue Department. Two hills close to the southern extension of Great Southern India Railway, an open plain of 200 Acres near Trichinopoly, the Cauveri padugai measuring about 63 acres at Kristnarayapuram, two breached tanks about two miles from the same measuring about 122 acres, and the padugais on the northern bank of the Coleroon in Udaiyarpalaiyam Taluq measuring about 1,800 acres were recently made over to this department on the requisition of the undersigned.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) G. HADFIELD,
Assistant Conservator of Forests.

(True Copy.)
(Signed) J. B. PENNINGTON,
Acting Collector and Conservator.

No. 193*a*.

BUTLAGUNDU, *6th July* 1874.

From

W. McQUHAE, ESQ.,
Collector of Madura,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

I HAVE the honor to submit the Report of the Deputy Conservator of Forests on the Administration of the Madura Forests during 1873-74, with ten statements as per accompanying list.

2. The receipts for the year, *plus* increase in stock, amounted to Rs. 18,877-5-4½, and the expenditure to Rs. 20,678-2-7. There is an increase of Rs. 2,210 in the cash receipts of the year as compared with that of the preceding year; but in consequence of a falling off in the increase of stock, the total income is less by Rs. 1,127. The above increase occurs in the item "sale of Timber at Depôts."

	Rs.	A.	P.
Receipts... ...	...18,220	4	6
Increase in stock...	... 657	0	10½
	18,877	5	4½

3. The expenditure of the year, viz., Rs. 20,678 exceeds that of the preceding year by Rs. 503, and this increase is mainly due to the inclusion in the accounts of a sum of Rs. 656, the value of instruments supplied to the Forest Department.

4. The expenditure under the items "Timber felling" and "Transferring" is less, while it is greater under "Securing and Watching" and "Plantations," showing increased operations during the year.

5. With reference to the latter part of paragraph 27 of the Board's Proceedings, dated 27th January 1874, No. 133 (Forest No. 4), I beg to call the attention of the Board to paragraph 17 of the Deputy Conservator's report explaining the impossibility of making a trustworthy comparison of the profits derived by working departmentally and under the license system respectively, until the two systems are tried separately.

6. The sowing of railway fuel reserves in the open country has been commenced, and we have also three small plantations. One of these at Kodikanel on the Pulney Hills is not worth extending, the soil being evidently unsuitable for the quick growth of eucalyptus and acacia trees. I think it would be a good plan to maintain a nursery there and to sell young trees in pots to private individuals, allowing the Hill Deputy Tahsildar to have as many young trees as he could plant out for Government. Australian trees have not been spread over the hills, though they are very abundant at Kodikanel. They should be introduced into every hill village.

7. I beg to call attention to paragraph 27 of the Deputy Conservator's report. The burning of hills for the sake of the young grass is undoubtedly the thing that chiefly prevents growth of forest. Such fires cannot be entirely prohibited, because in many places the grass is more valuable than any trees that are likely to grow, but I would mark off tracts of hill in which the burning should be prohibited. Such tracts cannot, however, be fenced in on account of the expense, and the Collector should have power to punish summarily cattle owners when fires occur. It will never be possible to convict the cow boy who actually lighted the fire.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed.) W. McQUHAE,

Collector.

ENCLOSURE No. 1.

MADURA, 17th June 1874.

From

R. WILLIAMS, ESQ.,

Deputy Conservator of Forests,

To

W. McQUHAE, ESQ.,

Collector and Conservator of Madura.

I HAVE the honor to submit the Administration Report of the Madura Forests for the official year 1873-74.

SECTION I-B.

2. *Inspection tours of the Range Officer.*—During the year I was on circuit within my range for a period of 159 days in the aggregate as particularized below.

3. In the Pereacolum Taluq I spent 110 days on 6 different occasions, 8 days in Palani Taluq, 16 days in Dindigul on 2 different occasions, 11 days in Tiroomungalum on 3 different times, and 14 days in Madura.

4. I spent 151 days at Head-Quarters, Madura, in attending to the office work, etc., I did not hold office for a period of 13 days from 22nd December 1873 to 3rd January 1874, being holidays. I was on privilege leave from 15th February to the end of March 1874, during which time the Deputy Collector in charge of Madura Treasury conducted the correspondence, etc., on forest matters.

SECTION II.

RESERVES.

5. (*A*) *Reserved Forests and contemplated operations.*—Of the 6 forests in the Madura District, 2, viz., Pereacolum and Palani, only are worked departmentally through contractors who fell timber marked by the Forest Officers and deliver it at the nearest depôts.

6. (*B*) *Fuel Reserves.*—The Punjenthanghy Mallai, which lies partly in Madura and partly in Trichinopoly Districts, measures about 1,000 acres, and its fencing was almost completed during the year 1872-73. The growth of the fuel wood here is very dense. A cost of Rs. 427 was incurred during the year 1873-74 on account of pay of establishment for watching this reserve and the Meenakaradoo Hills in Trichinopoly District, whereas a sum of Rs. 858 were spent during the year 1872-73 on account of the pay of establishment and cost of fencing, etc. Receipts, nil.

7. A large portion of Sirumallai, of which area is not known, owing to the disputes between Government and Ammayanaikenur Zemindar, has been kept an open reserve. This is very well stocked with wood about 6 years of old, and it has been watched by the establishment who are appointed to check the tickets, etc., issued for removing firewood, etc., from the other portion of the hill; hence no expenditure has been incurred during the year. Receipts, nil.

8. A tract of about 16 square miles in Allagery Covil Mallai has been kept as an open reserve, and it consists of fuel woods growing thickly. The care of this tract has been undertaken by the Forest Establishment employed for protecting the adjacent hills; hence no expenditure incurred on account of the reserve during the year. Receipts, nil.

9. Shengadagavandan Mallai, that measures about 6 square miles, was fenced in all round prior to its transfer to this department from the Revenue authorites. This has only young plants of Oosul, etc., not more than a year old. No expenditure has been incurred during the year. Receipt, nil.

10. Out of 230 gulies of land selected at Sathungoody in Tiroomungalum Taluq for the formation of a railway fuel plantation, 55¾ gulies only have been cultivated with babool, etc. seed since October 1873, owing to want of rain, etc. The greatest height of the plants is about 1 foot, but that of the self-sown plants of Karoovel is about 5 feet.

11. (*C*) *Plantations and contemplated operations—Plantation No. I., Vunnathiparai.*—In this plantation 1,060 teak seedlings were transplanted during the year. There were 3,255 teak trees at the end of last year planted from 1869-70 to 1872-73, and altogether 4,315 teak trees are now existing in good condition. The greatest height of the trees is 33 feet and the greatest girth is 14 inches. The extent of this plantation is 5½ acres of land not fenced in, as there is no necessity to do so. The expenditure incurred during the year is Rs. 186, being the pay of a watcher and daily coolies employed in pitting, watering, etc.

12. *Plantation No. II., Kodikanel.*—In this 643 acacia and 302 eucalyptus seedlings have been transplanted during the year. There are 3,418 acacia and 4,557 eucalyptus trees planted from 1870-71 to 1872-73. The greatest height of the acacia trees is 12 feet, and the greatest girth 8 inches, and the eucalyptus trees are 30 feet in height and 15 inches in girth. The acacia plantation measures $17\frac{9}{16}$ gulies of land fenced all round, and the eucalyptus plantation measures $19\frac{1}{16}$ gulies of land fenced in two sides and drained in the other two sides. A sum of Rs. 461 has been incurred during the year on account of the pay of a maistry and watcher, as well as the daily coolies for pitting, watering, etc., whereas a sum of Rs. 555 has been spent during the last official year. Receipt, nil.

13. *Plantation No. III., Palani.*—This plantation measures $2\frac{3}{16}$ acres of land not fenced in. There are now 2,112 teak trees planted from 1870-71 to 1872-73. No fresh plants have been planted during the year. The teak seed collected in this district does not germinate freely, but Mr. Douglas, the Deputy Conservator of Anamallas, has now supplied a quantity of seed, and it

will be tried during the coming season. The greatest height of the trees in the plantation is 34 feet and the girth is 12½ inches. A sum of Rs. 137 has been incurred during the year on account of the pay of a watcher, etc.

SECTION III.

14. *License and Voucher Forests and comtemplated operations.*—Under this system 41,635 cubic feet of reserved and unreserved timbers have been sold for Rs. 2,867; a quantity of 308,242 maunds of firewood sold for Rs. 6,410, 83,558 maunds of bamboos sold for Rs. 2,528, 16,642 maunds of charcoal sold for Rs. 492, 28 maunds of rattan sold for Rs. 1-5-0, and under the heads of sale of "confiscated timber" and "miscellaneous" Rs. 478 were realized. Of the total of the above-mentioned sums of Rs. 12,299, Rs. 1,095 were paid to the Nattamgars, etc., being commission at 10 per cent. for the amount of collection made by them. This leaves a net revenue of Rs. 11,204 in favor of the year, whereas the cost incurred for maintaining the jungles amounts to Rs. 3,454. This shows a profit of Rs. 7,750 in favor of Government.

15. A quantity of 803-6-0 cubic feet of teak wood has been cut from Cumbum Valley by Lieutenant Greer, the Executive Engineer in charge of the special duty, Madura District, for the construction of certain bridges on the Goodalore Ghaut Road, and the amount of seigniorage Rs. 301-5-0 at As. 6 per cubic foot has not been included in the account of the year 1873-74, as the voucher for the sum did not reach the office of Deputy Conservator until the Forest accounts for March 1874 were closed and despatched; so this sum will be exhibited in the accounts of the year 1874-75.

16. It will be seen that the revenue under license and voucher system has decreased by Rs. 208 since last year. This I believe to be owing to the reduction of the rate of seigniorage on firewood made as per G. O., dated 31st October 1873, No. 1,225. The revenue from seigniorage on firewood alone has hitherto been more than one-third of the total Forest Revenue of this district.

17. *Results of the forests worked departmentally and under license and voucher system.*—No trustworthy comparison can be made of these two systems until they are tried on separate ground (at present licenses and vouchers are granted for forests which are at the same time being worked departmentally), and until the forests have been surveyed, and a fairly accurate estimate of the quantities and descriptions of wood in them arrived at.

SECTION IV.

18. *Yield of Forests.*—6,214 cubic feet of timber of different descriptions were cut and delivered by the contractors at the depôts of the Pereacolum Range, and 202 cubic feet of Marootha wood were felled departmentally on the Munja Mallais in Madura Taluq and brought to the Madura Depôt.

19. Altogether the yield of the forest worked departmentally is less by 1,299 cubic feet of timber than that of last year. I have to point out that about 6,000 cubic feet of timber felled by contractors during the latter part of the year were not brought to account for want of funds for paying the contractors *(vide* the Proceedings of the Board, dated 15th January 1874, Forest Miscellaneous No. 5-245.)

20. The total of the timber felled in the year amounts to cubic feet 6,416 *(vide* statement B herewith appended.) In addition to this there are 14,891 cubic feet remaining on hand at the end of the official year 1872-73. Of *this*, 4,955 cubic feet were sold during the year 1873-74 as shown in statement C appended, and 67 cubic feet of timber felled some six years ago were destroyed by white-ants, etc. A balance of 16,285 cubic feet remains on hand as shown in statement D appended.

21. 1,847 cubic feet of timber have been sold this year more than were sold during the year 1872-73, and this increase would have been much larger had I had funds for transferring timber from the various Forest Depôts to the Madura Market Depôt where a fairly quick sale is generally going on.

SECTION V.

22. *Financial Results,*—A sum of Rs. 11,019 was drawn during the year from the Madura Treasury on account of conservancy and working charges. Of this, Rs. 9,696 were expended for timber felling, etc., as shown in statement A appended, and Rs. 1,323 remained unaccounted for on the 31st March 1874. This sum was advanced to a contractor for felling a certain quantity of timber. The contractor felled, but chiselled none of the logs for want of money due to him. As the whole of the Budget allotment of the year was exhausted, the arrears due to the contractor were not paid in time to enable him to complete the work before the close of the year.

23. The Financial results of the year 1873-74 are as follow :—

	Rs.	A.	P.	Rs.	A.	P.
EXPENDITURE.						
Pay of establishment...	6,351	2	0			
Allowance of establishment	2,219	8	0			
Office contingencies	430	13	10			
Working charges	11,676	10	9			
				20,678	2	7
RECEIPTS.						
Sale of timber from Government Depôt ...	6,536	3	0			
Seigniorage	11,204	14	0			
Sale of confiscated timber	118	13	10			
Miscellaneous	360	5	8			
Add value of timber in stock	657	0	10½			
				18,877	5	4½
Balance against Government...				1,800	13	2½
Value of timber in hand on the 31st March 1873...	15,858	14	8½			
Add value of timber felled during the year 1873-74	5,757	11	3			
Add on account of excess rate realized on the sale of timber	1,509	10	6			
				23,126	4	5½
Deduct the value of timber sold in 1873-74.	6,536	3	0			
Do. of do. decreased in the re-measurement and that destroyed by white-ants, etc.	74	1	10½			
				6,610	4	10½
Balance in stock on the 31st March 1874				16,515	15	7

24. The expenditure on the Forest Establishment and working charges during the year 1873-74 amounted to Rs. 20,678, whereas that of the year 1872-73 has been Rs. 20,175. The difference of Rs. 503 in excess is owing to the value of surveying instruments supplied through the Board for the use of this district (*vide* Proceedings of the Board, dated 7th November 1873, No. 923, Forest Miscellaneous No. 246-7,592.)

25. The total receipts of the year 1873-74 amount to Rs. 18,877, whereas a sum of Rs. 20,008 has been realized during the year 1872-73. The difference of Rs. 1,131 is owing to a large quantity of timber felled by the contractors and not accounted for during the year 1873-74 for want of money to pay felling charges not appearing as "value of timber in stock."

26. Of the sum of Rs. 1,475 being the advance made during the year 1872-73, but not accounted for up to 31st March 1873, Rs. 534 were accounted for up to the end of 1873-74 by submission of bills and the balance of Rs. 941 remaining unadjusted up to 31st March 1874. Of this sum, Rs. 841 stands against the Ayagudy Zemin Forests worked by this department, and it is to be adjusted after the recovery of money due to Government by Messrs. Campbell and Co. (*vide* the Board's Proceedings, dated 28th April 1873, No. 666.) The remaining sum of Rs. 100 advanced

on account of sundry works, etc., was not adjusted within the year, as the works were not completed and examined by the Deputy Conservator, but this will be accounted for during the first half of the year 1874-75.

SECTION VI.

27. *General Remarks.*—No change of the existing Forest Conservancy Rules is required at present, except measures to prevent the firing of jungles which does more harm than all the robbery and legitimate felling put together. With this exception the system now in force seems satisfactory. The conduct and health of the establishment are on the whole good.

28. Up to the end of March 1874 little had been done in the establishment of fuel plantations, but that little was experimental, and will, I hope, enable me to effectually extend this sort of thing at a small cost. I see in the Officiating Inspector's report on fuel reserve plantations that I am said to have gone the right way to work, and I would here state that I am indebted for the hint to Mr. W. S. Whiteside of the Madras Civil Service who got it from a friend in Bengal.

29. *Forest Offence.*—Forty-six men were charged before Magistracy with theft under Section 379 of Indian Penal Code. Of these, 37 were convicted and fined in the collective amount of Rs. 410, and 9 were acquitted for want of legal proof. Twenty men were prosecuted under Section 426 of Indian Penal Code, convicted and fined in the collective sum of Rs. 141. 588 persons were prosecuted before the different Village Munsifs under the Regulation No. 11 of 1816, and were punished by simple imprisonment.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) R. WILLIAMS,
Deputy Conservator of Forests.

TINNEVELLY COLLECTOR'S CIRCUIT CUTCHERRY,
COURTALAM, 19th August 1874.

No. 411.

From

R. K. PUCKLE, ESQ.,
Collector of Tinnevelly.

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honor to report on the Forest Administration of this district for 1873-74.

2. The Executive Staff consisted of a Deputy Conservator, one 1st Class and one 3rd Class Forester, five Sub-Overseers, and twenty-nine Peons, this staff was employed in conserving the forests along 100 miles of Ghaut Mountain, and in attending to a considerable area of thorn jungle along the line of rail in the plains.

3. The preservation of the forest that clothes the heads of the streams that drain the hills between Courtallam and Papanassam, is of such great importance to the prosperity of the district, that the Deputy Conservator at my request desisted from felling in this particular forest, and afforded me considerable assistance in laying out a path and fence, dividing this conserved forests from the grazing grounds and firewood jungles granted free of charge to the villagers on the lower

slopes and spurs of the hill, the grant of these tracts free of charge was much appreciated by the villagers concerned, and as the ticket system for cutting firewood was then abolished in ten or twelve villages, a considerable number of forest peons were available for employment in other localities, the Tahsildars of the taluqs concerned have the immediate control of these grazing grounds, and one or more watchmen in each village patrol the path, and by keeping cattle and wood-cutters within bounds, effectually preserve the forest above. The success of this system of conservancy is undoubted, and though the Deputy Conservator would have preferred to employ his peons instead of the villagers, I thought it better to engage the villagers in watching their own common lands and so enlisting the powerful aid of the Village and Taluq officials. The path is not yet complete throughout its entire length, but when completed, it will render that forest accessible at almost any point, and will afford an excellent base line both for watchmen and inspecting officers to patrol. The system of dividing the conserved forest above from the free grazing grounds and firewood jungles below, was approved by the Board, in Proceedings, No. 52, dated 14th January 1874, the hill forests both north and south of this particular reservation, are used for felling, and the ticket system for firewood cutting is still in force in them.

4. The thorn jungles along the railway require so little attention, as the trees spring up in thousands when cattle are kept off, that the active forester (Mr. Forester Theobald) who superintended these was able to assist me very materially in superintending Jungle Conservancy also. During my absence in England, however, he was transferred to Annamalei, and his successor who has poor health and no local experience as yet, finds sufficient employment in attending to the Fuel Reserves ; these reserves are now being extended, and ere long I hope to have a large area under Babul for the use of the Railway.

5. The area now occupied consists principally of the beds of tanks in the black cotton soil where the Babul springs up spontaneously and grows extremely quickly. Five years' growth is sufficient to give a Babul stem of an average of six inches diameter, the proper size for Railway billets, and two such trees will fill a cart. Our Satistics show that we have 4,470 Acres under Babul containing 1,00,000 ripe trees and 80,000 that will be fit to cut in from two to three years, besides millions of seedlings that will be ready to cut in from five to six years more, and by the time that the railway is open, we shall have largely increased our stock of ripe trees on lands now being taken up ; at Tuticorin itself, I have just added a square mile of country thickly covered with the Umbrella Thorn which makes as good fuel as Babul, and during the settlement now in progress, I anticipate by the exchange of waste lands, etc., being able to acquire several other similar tracts.

6. The definition of the Saptur Zemindar's forest boundary is very urgently needed, the favourable issue of his suit in Madura has given him a pretext to rightly or wrongly annex an enormous tract of mountain forest in this district, and as he wisely abstains from showing the boundary he claims, he avoids a settlement of the question, and is enabled to exercise rights and make profit in a territory that undoubtedly belongs to this district. The Zemindar lives in Madura, and I cannot enforce his attendance to show his boundary, neither can the one or two forest peons deputed to that locality prevent the Zemindar's underlings from despoiling the border forest.

7. The Deputy Conservator remarks that the forest produce of the Singampatti Zemindari was sold for a period of three years by the Sub-Collector in charge of the Estate. The failure to communicate the particulars of this sale to the Deputy Conservator was of course an oversight which will be promptly remedied.

8. The prosecutions for infringement of forest laws were numerous, but these are unavoidable where the forest is an unprotected property lying open to trespass, where it is protected by the path described above, and the villagers have all that they ask for and even more in the way of free grazing and firewood cutting ; no cases have occurred of petty theft.

9. The storing of timber at depôts at a distance from the foot of the hills is a failure. The sale hardly pays the expenses, and the Natives prefer green to seasoned wood. I advocate departmental felling in preference to the License and Voucher system, but the former should be regulated by the demand from month to month, free passes for cutting agricultural implements and firewood would be no longer needed could we divide the hill side into free jungles and reserved forests along the whole length of our hills, the people would then be at liberty to do what they like with their own, and the Forest Overseers and Peons would be employed on their legitimate work of patrolling well defined and comparatively accessible tracts.

I have the honor to be,
Sir,
Your most obedient servant.

(Signed) R. K. PUCKLE,
Collector.

ENCLOSURE No. 1.

COURTALAM, 18*th May* 1874.

No. 1,025.

From

W. C. HAYNE, ESQ.,
Deputy-Conservator of Forests, Tinnevelly,

To

R. K. PUCKLE, ESQ.,
Acting Collector of Tinnevelly.

SIR,—I have the honor to submit my Annual Accounts and Administration Report of the Tinnevelly Forests and Railway Fuel Reserves for the Official year 1873-74.

SECTION I.

2. *Inspection tours.*—All the forests of this range have been visited by me with the exception of the Streevaliputtoor forests, which I was about to visit, when I was required to accompany the Collector on a tour along the foot of the hills, to receive his instructions with regard to the localities to which the ryots were to be limited for the free removal of firewood, and for the grazing of their cattle. The laying out and construction of a portion, and the supervision of the whole of this bridle path has occupied much of my time, being some 25 miles in length. The boundary path or free felling and grazing limits is only being carried out in the Tampurapurny range, which block, as I stated in my last report, was excluded from the direct management of the Forest Officers and placed under the management of the two Tahsildars, in whose taluqs that portion of the hills lay, with two Maistries and twenty-two Kavalgars or Watchers, of the Murava caste, under their command to patrol along the foot and prevent people entering the hills. They are paid at the rate of Rupees 2½ a month, which is periodically increased in a lump sum to a salary equivalent to Rupees 5 per mensem, if they performed their work well and efficiently. From what I have seen of the system, it does not work at all well. The Kavalgars are dissatisfied with the system of payment, and I seldom find them at their posts, nor do they keep up the fences which is part of their work. What check or supervision the Tahsildars have given these men will be best known by a perusal of their diaries. I doubt if it would be found that they had visited the whole length as often as twice throughout the year. I have found the Kavalgars very independent, and far less obedient than my Forest Peons. As these Kavalgars do not, and are not

supposed to, proceed to the black forest, or even beyond the foot of the hills, there is no knowing what clandestine felling or other frauds may not be taking place.

3. The Railway Fuel Reserves were inspected by me two or three times during the year, and the Singamputty Forests were also visited by me.

4. I was eight months on tour, three at Head-quarters, and one month on leave.

SECTION II.

5. A. Reserved Forests—*Reserves.*—All the Forests are reserved under certain restrictions. A little felling has taken place in the Vasudevanellore forests, to meet a demand from the Public Works Department, as the timber in the depôts was not of the scantling required by that department.

6. B. Fuel Reserves.—The work on, and the supervision of, these have not been satisfactory, and consequently I am unable to report the progress I had hoped to have achieved in my last report. This is owing to the devotion of Mr. Theobald's time, interest, and attention almost entirely to Jungle Conservancy works, which are under the control and inspection of the Collector, while the Fuel Reserves were considered by him to be a matter of secondary importance. These anomalous proceedings were about to terminate by the separation of the Jungle Conservancy and Forest management, when the year closed. Fourteen tank beds have been added, making an area of 2,700 Acres, which when added to those taken up last year, makes a total of twenty-five Reserves, equivalent to an area of 4,470 Acres; but a deduction of about 25 per cent. of the acreage should be made for standing water, to give an approximate idea of the area that might be planted up, which would reduce it to 3,363 Acres. Seed has been strewn over all the newly added Reserves, but as it has been a very dry season, they have failed to germinate.

7. A sum of Rupees 1,204-4-4 has been spent on the Conservancy of the Reserves including the Office Establishment, but if the Forester's pay be included, the amount is increased to Rupees 1,814-4-4 as will be seen from the enclosed Statement. A small sum of Rupees 103-11-3 has been realized by the local sales of wood, trimmings, etc.

8. C. Plantations.—There are no plantations.

SECTION III.

9. *Forests worked under License and Voucher System.*—It will be seen from Statement E, that the license and voucher system exists only for the removal of jungle and firewood, it having been discontinued for Reserved woods since 1871. I see no reason why it should not be discontinued for Jungle-wood also, which could be cut and supplied departmentally in the same manner as the reserved timber, which would keep the depôt employés more fully occupied.

Statement showing the cost and receipt of the Fuel Reserves for the official year 1873-74, *Tinnevelly District.*

Name of the Reserve.	Year in which the Reserve was formed.	Area.	Description of trees.	Number of trees.			Cost.		Receipt.	
				1st Class or ripe.	2nd Class or medium.	Total.	During the year.	Up to the end of the year.	During the year.	Up to the end of the year.
							Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Kaliavoor Tank	1st August 1872	665	Babul.	15,000	6,000	21,000				
Kaliavoor Block	Do.	200	Do.	50,000	1,000	51,000				
Rajoncolam	Do.	120	Do.	5,500	11,500	17,000				
Mutturcolam	Do.	240	Do.	2,000	20,000	22,000				
Kuttukalcolam	Do.	130	Do.	.....	.....	.....				
Odaiarkolam	Do.	1	Do.	.....	.....	.....				
Naraiginaru Tank	1st December 1873	130	Do.	.....	.....	.....				
Agilandapuram	1st August 1872	125	Do.	15,000	10,000	25,000				
Kutticolam	Do.	20	Do.	2,500	5,000	7,500				
Parachicolam	Do.	105	Do.	1,250	5,000	6,250				
Sengalamudiarcolam	Do.	45	Do.	3,000	7,000	10,000				
Karisalcolam	Do.	120	Do.	1,750	12,000	13,750				
Manurcolam	1st September 1873	1,180	Do.	3,500	.....	3,500	1,204 4 4	3,192 0 3	103 11 3	103 11 3
Rustacolam	1st August 1873	20	Do.	200	.....	200				
Ramasamipuram	1st September 1873	20	Do.	200	.....	200				
Sirucolam	Do.	5	Do.	100	.....	100				
Kalakudicolam	Do.	130	Do.	300	.....	300				
Puducolam	Do.	100	Do.	300	.....	300				
Seedakurichicolam	Do.	55	Do.	80	.....	80				
Nenmenicolam	16th Do.	485	Do.	.....	.....	.....				
Mudithalai	20th October 1873	200	Do.	5,895	.....	5,895				
Periaperali	9th December 1873	110	Do.	.....	.....	.....				
Ondipulinaikanur	11th Do.	105	Do.	.....	.....	.....				
Puducolam	20th October 1873	245	Do.	.....	.....	.....				
Sinnaperali	9th December 1873	40	Do.	.....	.....	.....				
				Cost of the sanctioned Establishment ...			610 0 0	3,066 9 9	....	....
						Total..	1,814 4 4	6,258 10 0	103 11 3	103 11 3

PALAMCOTTAH,
15th August 1874.

(Signed) W. C. HAYNE,
Deputy-Conservator of Forests.

SECTION IV.

10. *Yield of Forests.*—Statements B and C show that 281-2-6 cubic feet of timber have been brought down to the depôts, and 1,441-4-5 cubic feet disposed of; 759-0-5 cubic feet were sold by depôt agency, and 682-4-0 cubic feet by auction, the latter at a loss. One of the depôt writers Peramanoyagam Pillay, embezzled 74-0-7 cubic feet, for which he was sentenced by the Sessions Judge to one year's rigorous imprisonment, and a fine of Rupees 75.

SECTION V.

11. *Financial results.*—The financial results of the year (Statement A) show a surplus of Rupees 5,781-0-9, being Rupees 2,389-10-6 in excess of the preceding year. The receipt amounts to Rupees 18,977-14-8, and the expenditure to Rupees 13,196-13-11. The results are satisfactory, as the seignorage collection from a large and prolific block of hills. (The Tambrapurny Range,) has been stopped, and the Conservancy of the Railway Fuel Reserve still remains a source of expense.

12. The proceeds from timber sales have been very poor, and will remain so, until the whole of the timber in hand is sold off; for natives, contrary to Europeans, prefer purchasing green to seasoned timber, of which circumstance, I was not aware on my arrival in this district.

13. Forest produce have proved a prosperous source of revenue, nearly Rupees 7,000 having been realized.

SECTION VI.

14. General Remarks.—*Administration of the Tambrapurny Range.*—I am not satisfied with the new Forest Administration arrangements which were introduced, on the re-organization of the department in October 1872, in the Tambrapurny Range, and which have now been working for a year and-a-half. I feel confident that forest peons would protect the forest much more effectually than Kavalgars appointed on the result system, drawing a monthly salary of Rupees 2½ only, or Kavalgars of any nature, whether on full or half pay; I find them an independent, discontented, disobedient, and useless set of men, and their labors are not confined entirely to forest work, but are employed on village works also. I regret I cannot hold the same high opinion of these Murava Kavalgars, and their utility, as Mr. Puckle.

15. On the Tambrapurny Range being placed under the charge of the Tahsildars, the Forest Peons therein employed were transferred and distributed over the other ranges, which has resulted, I think, in the increase of revenue under Head II., and the detection of a greater number of Criminal Cases.

16. *Demarcation of the south-eastern boundary of the Saptur Zemindari.*—I noted in my report of last year, that the boundary dispute between the Saptur Zemindar and Government had been settled in Court, and strongly recommended the boundaries being demarcated at once, to prevent subsequent encroachments. Though the disputes have been settled in Court and the boundaries given on paper, yet, in reality, it is still under dispute, and will only be settled when the boundary is actually demarcated, and the Government arrow cut on immoveable rocks.

17. *Forest offences.*—An abstract of forest offences is appended in a tabular form, which shows that the detection of crime is still on the increase. No less than 252 cases, comprising 1,236 individuals have been tried and punished.

A Timber Yard Writer was sentenced to one year's rigorous imprisonment, and a fine of Rupees 75 for embezzling wood.

18. *Free Pass.*—Passes for forty-nine cart loads of Jungle-wood, for agricultural and other purposes, and eighty-seven cart-loads of firewood have been issued.

19. As Government called for the estimate of the free consumption of firewood just at the close of the year under review, I am only able to give an approximate idea of the amount thus removed without passes which is about 8,300 cart-loads, equivalent to 1,33,333 cooly loads, and representing some 400,000 bundles. This is rather under than over the mark.

20. *The working of the Free Pass system and the general feelings of the ryots.*—The system of allowing free passes to the ryots appears to have worked satisfactorily, and as far as my knowledge goes, the ryots seem generally satisfied with the forest administration.

21. *Health and conduct*—The health of the Forest and Fuel Reserves Establishment have been good on the whole, and their conduct fair. Three peons were dismissed.

22. Forester Mr. Theobold was promoted as 2nd Class Forester at the beginning of the year to the vacancy occasioned by the death of A. Appavoo Pillay, former Overseer of this Range. Forester Mr. Johnston was found physically disqualified for forest employment by the Zillah Surgeon in August, and consequently had to quit the department. My Writer was promoted as Acting 3rd Class Forester in charge of the forest, in which capacity he has given me satisfaction

SINGAMPUTTY FORESTS.

These forests, coming within the Tambrapurny Range, have been reserved on the same principle. No felling has taken place, and consequently there have been no timber sales. Grazing of cattle and the free removal of firewood within prescribed limits are permitted. The forest produce were leased for a period of three years, by the Acting Sub-Collector (Mr. Happell), without my knowledge or assent. The amount for which it was farmed has never been communicated to me.

I have the honor to be,
Sir,
Your most obedient servant.

(Signed) W. C. HAYNE,
Deputy Conservator of Forests.

COIMBATORE COLLECTOR'S OFFICE,
18*th July* 1874.

No. 169.

From

A. WEDDERBURN, Esq.,
Collector of Coimbatore.

To

J. GROSE, Esq.,
Secretary to the Board of Revenue, Madras.

I HAVE the honor to submit the annual report of the forests of this district for 1873-74, accompanied by the prescribed statements, in conformity with the instructions of the Board in Official Memorandum No. 22/222 of 20th February 1874.

SECTION I.

2. *Inspection Tours.*—I made a tour of inspection of Sattiamungalum and Collegal Forests and of the boundary between Collegal and Mysore, in June-July 1873, lasting one month. My next inspection was after I returned from my leave in September 1873, when I proceeded to Metoopolliem and Coonoor to inspect and report upon the slopes then annexed to the Coimbatore jurisdiction; this tour lasted twenty-eight days. My third visit was to Bolamputty Forests, which took me fourteen days to inspect on two occasions in November 1873. My next inspection was in December, when I spent five days in going over the Kurudimallay or Lampton's Peak Range, on which Mr. Ross submitted a report, *vide* Revenue Board's Proceedings, No. 16/401 of 23rd February 1874. The total period I was absent on forest inspection aggregated two months and seventeen days during the year under report.

3. I observe that in his annual report for 1871-72, Major Beddome, then Conservator of Forests, remarked, with reference to the order of the Supreme Government sanctioning the reorganization of the department and the subordination of the forest establishment to the Collector, that "it is impossible that Collectors can visit all the forests in their ranges or even attempt the supervision of them in some cases." With the exception of the Higher Anamallay Ranges, which are, at present, inaccessible, I have been over the whole of the forests in this district, and submitted reports on all under Conservancy.

SECTION II.

4. *Reserves.*—Of the forests of this district, only two are reserved tracts; the rest are open to license holders, though the superior timber is reserved for felling by departmental agency. In his annual report Mr. Ross states that even Sholakarray is open to licensed felling. As the Board require that the receipts and disbursements under each head* should be compared with those of the previous year, the same forest ranges will appear twice over, once under Reserves, and again under License and Voucher Forests. As the permanent establishment is employed on ranges of forests and not on each description of operations separately, the cost thereof cannot be distributed over these different heads without rates of distribution being prescribed to ensure uniformity. The disbursements, therefore, appearing under each head are exclusive of the cost of establishment, which latter will be taken into account in reviewing the financial results of the forest ranges in Section V of this report.

* Reserved Forests.
Fuel Reserves,
Plantations.
License and Voucher Forests.

5. *A.—Reserved Forests.*—This head comprises all departmental operations in felling, removing and disposing of timber from the several forests of the district, whether reserved by tracts, or only as regards trees. The subjoined abstract shows the aggregate transactions, viz:—

	Receipts.			Disbursements.		
	1872-73.	1873-74.	Variations.	1872-73.	1873-74.	Variations.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Anamallay Reserved Forest	8,341	63,820	+ 55,479	29,031	21,739	— 7,292
Sholakarray Reserved Forest in Bolamputty Range.	....	2,339	....	....	519	....
Metoopolliem	....	....	....	100*	....	— 100
Sattiamungalum....	14,896	10,125	— 4,771	3,605	3,367	— 238
Collegal	17,149	15,529	— 1,620	5,994	4,125	— 1,869
Bhowany.....	23,488	15,109	— 8,379	17,025	15,166	— 1,859
Total..	63,874	1,06,922	....	55,755	44,916	....

6. *Anamallay.*—The increase in receipts is due to the adjustment of accounts by the Bombay Marine to the extent of Rupees 32,972, and to the disposal of rosewood to the Madras Gun Carriage Factory, amounting to Rupees 23,733.

Mr. Douglas seems to have carried out his programme of work for the year in the collection of, and bringing to, depôt a large outlying stock of cut timber.

The saving in the expenditure is accounted for by a decrease in carting operations; 1,700 logs of timber were carted during the year against upwards of 3,500 in the previous year. The charges include an outlay of Rupees 1,169 for survey of the leased forest and boundary of the district by the Survey Department. The leased forests is estimated to be 30 square miles in extent; and the Government teak forest 50 square miles.

* Advanced during the previous year for fuel supplied by the Contractor during the year under report.

7. *Sholakarray.*—The receipts and disbursements of these forests for the previous year are not given, as they were amalgamated with the Palghaut Forests in that year's accounts. No felling took place in Sholakarray during 1873-74; so the receipts in this year were by sale of stock.

Mettoopolliem.—No operations were carried on by the departmental agency except 33⅓ tons of firewood officiously stacked for the Railway at Mettoopolliem, but not indented for by that department. It will be sold this year.

8. *Sattiamungalum.*—As already mentioned, this forest, which is about 500 square miles in extent, is open to licensed felling, though Colonel Morgan alludes to it as a reserved forest. The wild sandalwood in it is worked departmentally, the cost has not varied much, while the receipts are less; which is explained by the stock that remained unsold in the beginning of the previous year having been credited to that year's accounts. I hardly think that sandalwood and roots should be entered as "Timber," but the sales from this source aggregated Rupees 10,000, out of Rupees 10,124 "Timber of all descriptions."

9. *Collegal*, like Sattiamungalum, is about 500 square miles in extent, and is worked under the license and voucher system, except as regards reserved trees.

There seems but little teak in Collegal, where I remark these are estimated to be 5,000 trees. None, at any rate, appears to have been cut or sold of this supposed quantity.

We certainly do nothing for these forests, except work the wild sandal departmentally, and plant it in view of future requirements.

The decrease in receipts here is attributable to the same cause as in Sattiamungalum Forest, viz., larger sales of stock in the previous year. The disbursements also decreased owing to less carting operations, which enabled a transfer of Rupees 1,500 to Bhowany to meet the cost of floating operations there. There is no demand, except a limited one, by Department Public Works for departmental timber.

10. *Bhowany*, about 400 square miles in extent, is also a forest of the same description as the above.

The operations in the Bhowany Taluq are of an important nature, comprising the collection and stacking of sandalwood, and the supply of fuel to the Railway.

The financial results, however, were not satisfactory, owing to operations having been hampered for want of funds, which were Rupees 1,000 less than budgeted for, and from the defective floating operations. The floating Overseer was dismissed, and a new arrangement proposed by Colonel Morgan, and submitted to the Board, whereby Mr. Grant will be relieved of his overwork which partially led to the defect noticed.

But for the above causes, there would have been a financial success.

Heavy former charges were apparently paid in this year, viz., Rupees 1,922 for rock boring in the Cauvery, and there was a delay in payment of fuel by the Railway; the formerly noticed mismanagement regarding the delivery of fuel caused a less quantity to be delivered to the Railway, being only a quarter of that indented for. I should at once have acted on Colonel Morgan's suggestion in re-distributing the supervision of this department, but the question had to be referred by the Board for the opinion of the Inspector of Forests: and hence delay.

It seems a good trade for Government selling firewood at Rupees 6 a ton, which costs less than half that sum to produce; and I cannot help congratulating myself on having, in 1871, refused an offer, supported by the Deputy-Conservator, for cowle of 4,000 acres of these scrub jungles for nominal cultivation, but really for wood speculation.

The most important matter for the future is to sanction the proposed re-arrangement of duties in the fuel-supply department, whereby the Overseer will be relieved of overwork, and fuel adequately supplied to the Great Southern India Railway, a measure both profitable to the State, and advantageous to the Rail.

11. *B.—Fuel Reserves.*—There are four in this district, three in Metoopolliem, and one in Bolamputty Range. The receipts were *nil*, except in the Walliar Reserve, where Rupees 20 were realized. The expenditure was as shown below:—

——	1872-73.	1873-74.	Variations.
	RS.	RS.	RS.
Metoopolliem { H Reserve	352	291	— 61
Metoopolliem { K do.	..	6	+ 6
Metoopolliem { M do.	1,406	6	— 1,400
Walliar do.	1,714	753	— 961
Total..	3,472	1,056	— 2,416

The H and M Reserves at Metoopolliem, and the Walliar Reserve in Bolamputty Range, have been fenced in. The K Reserve has not yet been fenced. The boundaries of the Metoopolliem Reserves having been fixed by Government, after a report from the Assistant Commissioner of the Nilgiris without further reference to the Board of Revenue, or Collector of Coimbatore, will have to be revised, in order to release private and communal lands included within the authorized limits. The extent and other information regarding the four reserves are given in the following table:—

Name of the Reserve.	Year in which the Reserve was formed.	Area.	Charges. During the year.	Charges. Up to the year.	Receipts. During the year.	Receipts. Up to the year.	Remarks.
			RS.	RS.	RS.	RS.	
H Reserve	1872	8 sq. miles	291	643	..	..	
K do.	„	6 do.	6	6	..	..	
M do.	„	5 do.	6	1,412	..	..	
Walliar do.	1868	1½ do.	753	10,976	20	*—	
		Total..	1,056	13,037	20	—	* Information not available.

† Revenue Board's Proceedings, No. 2,009, of 14th October 1872, and No. 1,253, of 10th July 1873.

12. There is another tract sanctioned,† on my recommendation, to be enclosed as a fuel reserve near the Anamallays, which will be referred to under "General Remarks."

13. There are no "fuel reserves," nor are any required in the extensively wooded taluq of Sattiamungalum, whose northern part is hill and jungle. The same remark is applicable to Collegal and Bhowany.

14. *C.—Plantations.*—None of the plantations of this district are as yet yielding; so the receipts are *nil*. The expenditure contrasted with that of the previous year is shown below:—

——	1872-73.	1873-74.	Variations.
	RS.	RS.	RS.
Talamalay, Sattiamungalum Range	4,238	1,633	— 2,605
Byloor, Collegal Range	4,694	2,975	— 1,719
Experimental { In Bhowany Range	94	234	+ 140
Experimental { Moody, Anamallay Range	718	809	+ 91
Experimental { Toonacadavoo do.	133	867	+ 734
Total..	9,877	6,518	— 3,359

The expenditure on the first two plantations was less in 1873-74, and the operations were also proportionately less. The number of plants put during the two years was as follows:—

——	1872-73.	1873-74.
Byloor	23,000	9,000
Talamalay	16,900	8,900

except 2,600 in the latter, which are Anatti plants, all the rest are sandalwood. In addition to the above operations, ten acres were prepared and pitted for planting at each of the above plantations. I have not seen the plantations during the year of report, but last year they were thriving. No receipts of course can be expected from this source for some years to come, but there seems no doubt of the future value of the plantations.

15. The experimental Bhowany Plantation is reported to be progressing favorably; the increase of expenditure was caused by the construction of a well to provide against scarcity of water in the dry season. Mr. Douglas reports that the teak plantation at Moody is also improving; the Toonacadavoo one was established in 1873; the casualties in both the latter were heavy, attributed to the distance from which the plants have to be carried, viz., from the nursery at the foot of the ghaut. But Mr. Douglas anticipates better results.

16. The number of trees established, and other particulars regarding all the plantations noticed, are given in the following table:—

Name of the Plantation.	Year in which the Plantation was formed.	Area in acres.	Description of the trees.	No. of trees.	Cost. During the year.	Cost. Up to the year.	Receipts. During the year.	Receipts. Up to the year.	Remarks.
					Rs. A. P.	Rs. A. P.	Rs.	Rs.	
Talamalay ...	1863	65	Sandalwood.	61,800	1,633 1 9	10,796 14 7	.....	.....	
Do.	1873		Anatti.	2,600					
Byloor	1870	56	Sandalwood.	38,000	2,975 7 3	11,509 0 6	.....	.....	
Bhowany ...	1871	64 sq. yds.	Firewood.	.....	233 10 0	608 5 10	.....	.....	Experimental Plantations
Moody	1870	8	Teak.	8,439	808 10 0	1,618 9 11	.....	.....	
Toonacadavoo.	1873	8	Do.	3,680	866 12 0	999 12 0	.....	.....	

17. In paragraph 15 of his report for Sattiamungalum, Colonel Morgan remarks that the experimental sandalwood plantation of that range promises well. No details, however, of a separate experimental plantation in the range have been furnished.

SECTION III.

18. *License and Voucher Forests.*—The Anamallay slopes and the five other ranges of the district are, as already mentioned, all open to licensed felling. The collections under this head are either made through the village Monigars, who issue licenses or lease to contractors. The expenditure shown is chiefly the commission paid to the village officers who collect the money. The expenditure against the Metoopolliem Voucher Forest includes the cost of the office establishment under the Deputy-Conservator, as separate sanction has not been received. Colonel Morgan has

shown the collections by contract under "IV. Permit Fees," and those through Monigars under "II. Timber removed by Purchasers." As both these items, however, are proceeds of the license and voucher forests, they are accordingly shown as receipts in the following abstract, viz:—

	Receipts.			Disbursements.		
	1872-73.	1873-74.	Variations.	1872-73.	1873-74.	Variations.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Anamallay..	3,308	3,876	+ 568	173	184	+ 11
Bolamputty	3,556	2,239	—1,317	435	445	+ 10
Metoopolliem	807	2,409	+1,602	500	422	— 78
Sattiamungalum	2,357	5,767	+3,410	..	..	..
Collegal	1,212	2,052	+ 840	..	..	..
Bhowany	3,198	3,500	+ 302	..	..	..
Total..	14,438	19,843	+5,405	1,108	1,051	— 57

19. *License and Voucher Forest, Anamallay.*—The increase of receipts on the Anamallay Voucher Forest is not large, and may be owing to the gradual development of the system and the natural increase of demand. Mr. Ross has not accounted for the large falling off in receipts in Bolamputty. His successor's attention will be called to this matter. The increase of receipts in Metoopolliem is due to the addition of the Nilgiri slopes to this range during 1873-74. The increase in the Sattiamungalum, Collegal, and Bhowany Ranges, is attributed by Colonel Morgan to additional demand for wood, which he believes will always continue, especially at Sattiamungalum.

20. *License and Departmental Systems compared.*—As regards the comparative merits of the license and voucher revenue, and that from departmental agency, the first only is suitable, or indeed possible, to the general condition of our forest ranges, and the last, to a compact and fenced reserved forest.

21. *Anamallay License. Forest continued.*—Mr. Douglas does not think that the license and voucher system is abused, and its administration is certainly cheap, being only 5 per cent. to the Monigars for the issue of licenses and record of the collection; their commission being in almost all instances a trifling amount (total Rupees 270 on the Anamallays) they were allowed to deduct it when forwarding the collections to the Treasury to save trouble and delay in their payment of commission.

21. (*a.*) This item of receipt should properly be credited to Jungle Conservancy and not to Forest Revenue. I proposed this in May 1873, but it was not approved of. There are no other but these village jungles to conserve, and no other receipts from this source.

Vide Revenue Board's Miscellaneous No. 102-3,063 of 20th May 1,873.

21. (*b.*) *Departmental* versus *License and Voucher.*—As regards my own observation of the systems, there is a very apposite case in point in another range. Another Deputy-Conservator entered into a contract to supply fuel to the Madras Railway at Metoopolliem. I may observe that the contract was with a forest contractor, and not with the Railway, who apparently were not consulted, nor was I. The fuel was cut, stacked, and found locally unsaleable at cost price; fortunately there was very little of it.

22. *License and Voucher Forest, Sattiamungalum.*—The right of collecting seigniorage on firewood; bamboos, charcoal, etc,. on the license and voucher system in Sattiamungalum Forest is leased out, and I hope that communal rights are respected.

The receipts under the license and voucher system (there are no charges) have increased nearly four-fold, and this is I think a gratifying proof that the people have had their wants supplied to a more adequate extent.

Receipts on account of timber removed on the	Rs.
License System in 1872-73	1,032
Do. do. 1873-74	3,985

22. (*a.*) Colonel Morgan, however, thinks that there is "apparently an enormous loss to Government, and damage to the jungles, under the license and voucher system," and thinks that if the whole system could be suppressed, and departmental working introduced, and a sufficient depôt kept at Sattiamungalum Town, that the reveuue would be increased and economy be the result.

22. (*b.*) These wide tracts are however, in my mind, not suitable for this system. Hill forests with a base of nearly 40 miles do not appear to me to be workable on this system; the carriage to the depôt is a large item, and the ryot would have to pay the carriage back, perhaps over the same road; and I am credibly informed that the departmental rates are too high for the people to pay, and the wood at the depôt was not much in request; any increased profit to Government would, therefore, be at the expense of the people. Departmental working and the suppression of the license and voucher system would be attended in the first place with a greatly increased expense of establishment to watch so great an expanse of country; an additional temptation to smuggling, and increase of forest offences, would result, and, I think, widespread dissatisfaction. It is a very different matter with a small compact Government reserved forest, such as the up-to-lately reserved teak forest on the Anamallays, which is worked departmentally.

23. *License and Voucher Forests, Collegal.*—The license and voucher system in the jungle taluq of Collegal is alone possible, with requirements for agricultural and domestic wood, and shows a slight increase in financial results.

23. (*a.*) The increase of about 9 per cent. in the receipts under "License and Voucher" in Bhowany Forest shows that wants are more adequately supplied. As this, however, occurred under departmental agency, it is of course so far an argument in favor of this system being continued.

24. *License and Voucher Forests, Bhowany.*—The Bhowany Taluq is more favorably circumstanced as regards the introduction of departmental agency than the Sattiamnugalum Taluq. It has a much smaller base, where the hills meet the plains, the supplies coming down only three passes, and the river at our command for floatation.

SECTION IV.

25. *Yield of Forests.*—The yield of the different forests is summarized in the subjoined table:—

Ranges.	Timber.					Firewood for Railway and other purposes.		Bamboos.		Charcoal.	Canes.	Forest Produce.
	Departmentally.		On License.		Free.	On License and departmentally.	Free.	On License.	Free.			
	C. FT.	MDS.	C. FT.	MDS.	C. FT.	TONS.	TONS.	CART LOADS.	CART LOADS.	TONS.	NO.	MDS.
Anamallay... ...	24,346	...	192	...	2,368	382	28	3,994	467	16	1,200	...
Bolamputty ...	.....	...	3,700	...	.....	1,077	36	756	86	42	...	...
Metoopolliem ...	.....	...	2,880	...	540 C.L. 27	59	3	161	36	½	...	..
Sattiamungalum.	14	4,360	25,062	...	200	1	Not furnished.	.....	Not furnished.	...	...	520
Collegal	.....	4,158	4,400	...	1,120	.....	81	.....	200	...	...	...
Bhowany	120	2,710	14,260	...	3,960	1,414	6	1,055	69	...	...	120
Total ...	24,480	11,228	50,494	...	8,188 C.L. 27	2,933	154	5,966	858	58⅓	1,200	640

SECTION V.

26. *Financial Results.*—The aggregate receipts and expenditure of all the forests in the district are shown in the subjoined abstract, arranged under the several heads, viz:—

Item.	Receipts.	Amount.	Item.	Charges.	Amount.
		RS.			RS.
I.	Sale of timber etc., removed by Government agency ..	1,06,718	I.	Expense for felling timber, etc	27,145
II.	Sale of timber removed on license	14,841	II.	Purchase of tools, etc	268
III.	Duty on foreign timber ..	....	III.	Feed and keep of cattle	8,364
IV.	Permit fees, etc.	4,792	IV.	Rent of leased forests	....
V.	Grazing dues	12	V.	Charges connected with the collection of forest produce	324
VI.	Sale of fruits, babul, pod, etc.	33	VI.	Plantations	7,345
VII.	Sale of confiscated timber ..	179	VII.	Forest work, viz., cutting of creepers, etc	1,604
VIII.	Fines and forfeitures	....	VIII.	Forest Survey	1,169
IX.	Miscellaneous receipts	210	IX.	Experiments to test the value of timber	21
			X.	Communications, etc	7,301
					53,541
				2. Establishment and Office contingencies	27,152
	Total ..	1,26,785		Total ..	80,693

Forests.	Receipts.	Disbursements including cost of establishment.
	RS.	RS.
Anamallay	63,820	34,009
Bolamputty	*2,359	1,396
Metoopolliem	.....	5,232
Sattiamungalum	10,125	6,445
Collegal	15,529	8,888
Bhowany	15,109	17,970
Total ...	1,06,942	73,940

* Inclusive of Rupees 20, being receipts on account of the Walliar Reserve.

Forests.	Receipts.	Disbursements including proportion of cost of establishment.
	RS.	RS.
Anamallay	3,876	1,872
Bolamputty	2,239	1,313
Metoopolliem	2,409	1,634
Sattiamungalum	5,767	482
Collegal	2,052	596
Bhowany	3,500	856
Total ..	19,843	6,753

Items 1, 6, and Rupees 190 out of No. 9 aggregating Rupees 1,06,942, represent the receipts from reserved forests and departmental operations in the district, the working charges of which including plantations and fuel reserves were Rupees 52,490, and the proportion of the cost of the establishment Rupees 21,450, giving an aggregate of Rupees 73,940, which leaves a profit of Rupees 33,002 during the year. The receipts from the license and voucher forests were Rupees 19,843; the charges were Rupees 1,051 under Conservancy, and Rupees 5,702 under Establishment; total Rupees 6,753, giving a clear profit of Rupees 13,090. The profit under Reserves is 44·6 per cent. on expenditure, and under License Forests 193·8 per cent. But the departmental working and the license system cannot be compared with each other, unless the two systems are tried over two similar tracts of equal dimensions which is out of the question.

27. The true results of each forest are given in the following table :—

Ranges.	Expenditure.	Receipts.	Difference between Columns 2 and 3.	Value of timber in depôt.	Increase of stock during the year.	Decrease of stock during the year.	True results of the year calculated on Columns 4, 6, and 7.
1	2	3	4	5	6	7	8
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Anamallay	35,881	67,696	+31,815	1,42,929	....	19,332	+12,483
Bolamputty	2,709	4,598	+ 1,889	2,661	....	1,938	— 49
Metoopolliem	6,866	2,409	— 4,457	400	100	....	— 4,357
Sattiamungalum ..	6,927	15,892	+ 8,965	2,478	1,996	....	+10,961
Collegal.....	9,484	17,581	+ 8,097	2,664	....	417	+ 7,680
Bhowany	18,826	18,609	— 217	6,989	584	....	+ 367
Total ..	80,693	1,26,785	+46,092	1,58,121	2,680	21,687	+27,085

The stock in hand at the beginning of the year amounted to Rupees 1,77,128, that at the end of the year to Rupees 1,58,121, showing a net decrease of Rupees 19,007. Deducting this sum from the excess* of receipts over the expenditure, leaves Rupees 27,085 as the true result of the year under report.

	RS.
Aggregate Receipts	1,26,785
Do. Expenditure	80,693
*Excess of Receipts ...	46,092

SECTION VI.

28. *General Remarks, Anamally.*—Mr. Douglas has contributed a long and interesting report on the operations of the past year.

A large quantity of timber cut in former years, apparently in excess of the demand, has been discovered and brought out for sale. This I noticed in my former inspection of this forest, but further search seems to have brought to light greater quantities.

29. The Government elephants seem to have worked well, and much care is taken of them by the Deputy-Conservator; their labor is cheaper than that of hired elephants, which, however, have to be engaged in addition, to get through the work in the season.

30. The carting establishment work chiefly above ghaut; below, it is cheaper to hire; and, unfortunately, in past years, the heaviest loss was from employment and exposure of the bullocks in carting below ghaut to the river depôt.

31. A very important feature in the forest operations on the Anamallays was the demarcation and survey of the boundaries with Malabar, and partially of the Numboody's leased forest. I can certify to the difficulty of the work from personal inspection, and its success reflects credit on the cordial co-operation of the Deputy-Conservator with Mr. Baber, in the material assistance given by the jungle tribes in clearing the line and putting the party.

32. It will be obvious that considerable confidence should be placed in a forest officer, whose, I may say, protectorate of the hill-tribes has led to such valuable results.

33. Mr. Baber too deserves much credit for the energy with which his work was done in a dense unhealthy forest twenty miles from the nearest village, whence supplies could be procured.

34. I pressed on Mr. Douglas the necessity of better quarters for his Overseers, and am glad to observe that he has made a considerable improvement in this respect by comfortable hutting, instead of going to the expense of pukka buildings, which would have entailed an incommensurate expense. The Local Fund Board, at my suggestion, have improved the road leading to the ghaut depôt.

35. As regards the future sale of timber, some will be sent to Bombay to be sold by auction, and sales will be tried in different places, whereby alone the best market can be ascertained. A depôt for seasoned wood for departmental purposes might be useful, but the Department Public Works find, generally, that contractors supply their demands to more exact specification than is possible in wholesale transactions. By having a depôt of all sorts of scantlings this deficiency may be, in future, obviated.

36. As regards planting, I am not so sanguine ; there is a natural reproduction going on, which conservancy will preserve. We have not the rich soil of the steamy plains of Malabar, where the Nelamboor Teak is produced by the acre. Whether this forced and rapid growth will produce as durable timber as the natural teak of the Anamallays remains yet to be tested. It seemed to me that the clearance of parasitical creepers was one of the most urgent of works, and this will be doubtless attended to.

37. As regards " Fuel Reserves," we have fortunately got one in this range. It may be imagined that when 30,000 additional acres were cleared of forest in thirty years round the village of Anamallay, not much would be left, and such was the case ; but there had been an outstanding boundary dispute with a proprietor of Malabar. This, though settled by a commission and a map, about twenty-four years ago, had never been demarcated on the ground, and continually cropped up again. The boundary was settled on the ground by the Collector of Malabar and myself, and adjudged to Coimbatore, and it then occurred to me, that this was the place for a fuel reserve, in fact, the only wood left on the plains. It has been demarcated, and will be made into an open reserve.

38. It is most fortunate we have this as a reserve for the future good of the people ; whereas, if a fuel plantation were attempted, it would be all expense and no return, like the Walliar one, which was once a dense jungle, and is now altered in climate and forest productiveness.

39. It also occurred to me that as the subject of fuel reserves for the people will soon become of permanent importance, it is better to reserve waste lands bordering on hills, etc., than to grant them for cultivation, and then buy them back again, to plant, and so I reserved the right of granting applications for such lands to myself.

40. *Free Passes.*—With reference to free licenses for communal and other purposes, no complaints have reached me that any undue restriction was placed on their issue in the Anamallay Range.

The remarkable case of abuse which I brought last year to notice arose from the Deputy-Conservator of another range leasing out to contractor the seigniorage of whole taluqs without consulting me, inviting sealed tenders, etc. ; the result was that the Revenue Department knew nothing about the matter, and that the leases to collect seigniorage were sublet, and the people fleeced in the remote highlands of Bhowany, and probably elsewhere.

41. " Free passes" are said by the Deputy-Conservator not to work well in Sattiamungalum Forests, but no detail is given.

42. The *free* passes seem very moderate in the large agricultural taluq of Collegal ; passes for only 180 cart-loads of firewood, about two to each village, which it is to be hoped were not restricted to that quantity or they could not have cooked their meals ; the greater number of the villages are situated in the midst of jungles. Also 200 cart-loads of bamboos seem but a small number for the repair of huts and fences, when all fields in the jungles must be fenced against the wild animals.

What actual amount of bamboos and firewood was consumed is not ascertainable; but the seigniorage on them was given on contract, and with velam bark and charcoal, realized Rupees 1,320.

43. Colonel Morgan (paragraph 33) writes that free passes are abused in Bhowany Forests, but gives no specific instances which, if brought to notice, would have been duly disposed of.

I have already in former correspondence given my opinion that for the greater part of this taluq, and indeed for all above ghaut, where mostly the jungle exists, free passes are unnecessary, as the ryots have a right to supply their simple agricultural and domestic wants without being troubled by any one.

The abuse was in the other direction, and I found the seigniorage contractors levying black mail from the hill cultivators, not to trouble them when fencing their fields or roofing their houses with the surrounding bamboos.

These people had been unmolested for generations till a man appeared with some assumed authority to tax them; and had I not gone over the hills among them, they would have been paying an alleged cess to this day.

A better arrangement has been introduced in the license and voucher system; the receipts are collected in Tannahs properly distributed, instead of allowing the contractors to levy rates all over the taluq.

44. *Forest Offences.*—With regard to forest offences, they seem rare in Mr. Douglas' range. I should have no hesitation in giving him *carte blanche* to prosecute, having entire confidence in his discretion; but am still of opinion, that the Collector should have the controlling power in this respect. Indeed no prosecutions, civil suits, or the like should be entered into without his sanction. A Forest Overseer lately brought a complaint of "breach of contract" Act XIII of 1859, before the Metoopolliem Sub-Magistrate, which had not a leg to stand on.

45. I do not know to what Colonel Morgan alludes in his report on Sattiamungalum Forests, when he writes that "criminal prosecutions are a failure as there is no forest law." There is the law of theft, as defined in the Penal Code, and this is worked as in other ranges. There seems to have been only one prosecution in the Sattiamungalum Range, and that was followed by a conviction.

46. The single forest offence reported in Collegal is the possession of certain timber supposed to be cut without license, an inquiry into which has been ordered.

47. *Reserved Forest and Hill Tribes, Anamallay.*—The only other subject is that of maintaining* our reserved forest of twenty-five years standing. There are no communal rights there. Here is a small compact teak forest, above ghaut, on the hills, and the question is, is it to remain so, or be open to the public, who may wish to cut timber, or graze cattle therein, having cleared away all the communal low country forest and made it into fields.

* Reference here is made to Proceedings, Madras Government, No. 634, of 26th May 1874, Revenue Department on an extract from "Native Public Opinion" forwarded to me for report.

48. It is a very curious fact that though the hill-tribes were emanicipated twenty years ago from all external influence, they are precisely in the same condition now.

Still under subjection to the Chetties.

49. The Chetty who was alleged to drive the poor hill-man to collect products in the monsoon (which is cardamom harvest-time), now visits him in his hut with his deleterious arrack and formidable statement of balance due to the account, carries off the produce on his

return bullocks, and will be prepared to produce an account showing either a wonderful confidence in the solvency of an apparently impecunious hill-man, or something wrong with the balance.* I do not think that the forest should be open to these men when the establishment is withdrawn, and the locality liable to uncontrollable fires.

* Rupees 5,000 ! !

50. It is to be hoped that allotment of former Kumery Forest-land to the jungle tribes will prevent further destruction of forest. There is no doubt that intercourse with these people by European officers is likely to be productive of permanent good.

I have the honor to be,
Sir,
Your most obedient servant.
(Signed) A. WEDDERBURN,
Collector.

ENCLOSURES.

1. Anamallay Forest Report, dated 1st June 1874, with seven statements.
2. Mettoopolliem and Bolamputty Forest Report, dated 14th May 1874, with twenty enclosures.
3. Sattiamungalum Forest Report, dated 30th May 1874, with seven enclosures.
4. Collegal Forest Report, dated ditto ditto.
5. Bhowany Forest Report, dated 3rd June 1874, with seven enclosures.

Note.—Stock Register E of the three latter forests, and statement of criminal prosecutions for Bhowany, will follow.

(Signed) A. WEDDERBURN,
Collector.

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
ANAMALAI RANGE, COIMBATORE,
14*th May* 1874.

No. 219.

From

C. G. DOUGLAS, ESQ.,
Deputy-Conservator of Forests, Anamalai Range,

To

A. WEDDERBURN, ESQ.,
Collector and Conservator of Coimbatore.

SIR,—I have the honor to submit my Administration Report on the Anamalai forests for 1873-74.

SECTION I.

Inspection Tours of the Officer in charge.—I was absent from headquarters 187 days in all performing six different tours, the longest of which lasted from the 12th of August to the 22nd December and included numerous minor inspections, varying from two days to a fortnight's duration, to parts of the forest more or less distant from Toonacadavoo.

SECTION II.—RESERVES.

1. A, RESERVED FORESTS.—The subjoined table shows the extent to which felling and trimming has been carried on, with cost per cubic foot including all charges ; the total outlay will be found to correspond with the total value exhibited in Appendix B.

Description of Timber.	Number of Trees felled.	Outturn in Pieces.	Outturn in Cubic Feet.	Details of Storage.	Cost per Cubic Foot.							Total Cost per Cubic Foot.	Total Valuation.
					Stump Fee.	Felling or Trimming.	Dragging.	Supervision and Sundries.	Carting.	Slipping.	Carting		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
					Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Rosewood ...	270	553	10,800 4 5	Forest depôts.....	1,573 2 9	0 2 4	0 2 3	0 1 2	0 10 6	.....	.....	.....	1 0 3	1,597 13 0
				Top of ghaut.....	919 3 6	0 2 4	0 2 3	0 1 2	0 10 6	0 3 5	.....	.....	1 3 8	1,129 15 5
				Adivarum	1,039 10 7	0 2 4	0 2 3	0 1 2	0 10 6	0 3 5	0 2 0	.....	1 5 8	1,408 2 9
				Settumadai	86 9 10	0 2 4	0 2 3	0 1 2	0 10 6	0 3 5	0 2 0	0 1 0	1 6 8	122 15 11
				Anamalai.....	1,436 2 9	0 2 4	0 2 3	0 1 2	0 10 6	0 3 5	0 2 0	0 1 6	1 8 2	2,169 4 10
				Coimbatore.....	5,744 11 0	0 2 4	0 2 3	0 1 2	0 10 6	0 3 5	0 2 0	0 5 0	1 13 2	10,472 8 1
Teak wood...	87	722	13,748 0 0	Forest depôts.....	10,379 5 6	0 0 8	0 1 0	0 0 4	0 10 6	.....	.....	.....	0 12 6	8,108 15 3
				Top of ghaut	2,552 4 0	0 0 8	0 1 0	0 0 4	0 10 6	0 2 0	.....	.....	0 14 6	2,313 0 10
				Adivarum.....	468 6 9	0 0 8	0 1 0	0 0 4	0 10 6	0 2 0	0 1 6	.....	1 0 0	468 9 0
				Settumadai	118 2 4	0 0 8	0 1 0	0 0 4	0 10 6	0 2 0	0 1 6	0 0 6	1 0 6	121 14 3
				Anamalai	229 5 5	0 0 8	0 1 0	0 0 4	0 10 6	0 2 0	0 1 6	0 2 0	1 2 0	258 3 0
Vengay ...	3	5+16=21	424 2 4	Forest depôts.....	60 9 0	.....	0 1 2	.....	0 6 10	.....	.....	.....	0 8 0	30 6 0
				Top of ghaut	340 4 0	.....	0 1 2	.....	0 6 10	.....	.....	.....	0 8 0	170 2 10
				Adivarum	23 1 4	.....	0 1 2	.....	0 6 10	0 1 0	.....	.....	0 9 0	13 0 0
Karamardoo.	3	6+ 8=14	299 4 8	Top of ghaut	262 4 0	.....	0 1 2	.....	0 6 10	.....	.....	.....	0 8 0	131 2 8
				Adivarum	37 0 8	.....	0 1 2	.....	0 6 10	.....	0 1 0	.....	0 9 0	20 13 6
Velvagai ...	4	6	162 2 6	Beypore	162 2 6	.....	0 2 0	.....	.....	.....	.....	0 7 0	0 9 0	91 3 11
Karuvagai ...	5	7	135 3 8	Do.	129 6 3	.....	0 2 0	.....	.....	.....	.....	0 7 0	0 9 0	72 13 8
				Adivarum	5 9 5	.....	0 1 2	.....	0 6 10	.....	0 1 0	.....	0 9 0	3 4 1
				Total...	.....	.....	.....	.....	.....	.....	.....	.....	28,704 5 0

2. The Rosewood was felled to complete an indent for the Madras Gun Carriage Factory.

3. The Teak, Vengay, and Karamardoo, is the product of girdled, dead, stunted, or wind-blown trees and of logs which had been abandoned or overlooked by working parties in former years. The labor of searching for and collecting wood thus scattered over the forest is severe, and, of course, in a batch of timber so obtained there are many inferior pieces, but the results are satisfactory; there is a considerable predominance of serviceable timber, some of which is really magnificent; a large and valuable addition to stock has thus been effected at a moderate outlay, and systematic operations should be continued to save that which must otherwise perish.

4. By far the most valuable portion of the Teak was obtained from trees abandoned after being cut and in many instances partially logged. This fact serves to show the necessity of maintaining careful supervision over axemen in these forests. In a busy season hundreds will be at work in small parties, and there is great difficulty in watching them; they fall sick, run short of supplies, or want to attend some festival, and when the spirit moves them they march without beat of drum,—too often not to return,—and it is a mere chance whether another party completes their work or not; if not, the timber lies,—unless discovered by some of the forest establishment,—until it rots or is burnt; in the dense undergrowth a log may lie unseen, though people pass within a yard of it.

5. The Vagai timber (*Acacia speciosa* and *Acacia odoratissima*) was a specimen consignment to Bombay, whence the Agent for Gun Carriages had applied to me for timber suitable for wheel-spokes, etc; five logs, containing 110 cubic feet of junglewood, not shown above, were cut and squared for cart-repairs at a cost of 1¼ Annas per cubic foot.

6. *Elephant Labor.*—The work performed by elephants,—both Government and hired,—is given below, with the number and description of logs dragged or slipped by each:—

	Number of Rosewood.		Number of Teak.		Number of Vengay.		Number of Karamardoo.		Other Logs.		Total.	
	Dragged.	Slipped.	Dragged.	Slipped.	Dragged.	Slipped.	Dragged.	Slipped.	Dragged.	Slipped.	Dragged.	Slipped.
1	2		3		4		5		6		7	
Government elephants	628	470	783	701	24	16	16	10	20	...	1,471	1,197
Hired elephants ...	114	97	...	382	...	2	...	...	...	...	114	481
Total...	...	...	...	...	...	...	...	...	...	...	1,585	1,678

7. *Carting above Ghaut.*—Details are given in the following table of work performed by Government agency and contract:—

Description of Timber.	Forest Depots to top of Ghaut.		Remarks.
	By Government Carts.	By Contractor's Carts.	
Rosewood	125	130	
Teak	52	70	
Vengay	13	...	
Karamardoo	12	...	
Total...	202	200	

8. *Carting below Ghaut*—As follows :—

Description of Timber.	From Adivarum to Anamalai.		From Adivarum to Settumadai.		From Adivarum to Coimbatore.		From Settumadai to Anamalai.		From Settumadai to Coimbatore.		From Anamalai to Coimbatore.		From Anamalai to Oodumalpettah.		From Takeady to Anamalai.	
	By Government Carts.	By Contractor's Carts.	By Government Carts.	By Contractor's Carts.	By Government Carts.	By Contractor's Carts.	By Government Carts.	By Contractor's Carts.	By Government Carts.	By Contractor's Carts.	By Government Carts.	By Contractor's Carts.	By Government Carts.	By Contractor's Carts.	By Government Carts.	By Contractor's Carts.
Rosewood	187	...	17	...	87	256	14	...	...	...	16	...	...	...	...	...
Teak	550	...	15	...	11	...	20	...	18	...	92	...	5	...	...	...
Vengay	...	...	...	...	...	...	...	...	...	...	2	...	...	...	8	...
Velvagai	...	...	...	...	...	...	...	...	1	...	11	...	...	...	...	...
Other woods	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total...	757	...	32	...	98	256	34	...	19	...	121	...	5	...	8	...

9. *The Government Elephant Establishment* has as usual proved a success. The value of work performed, calculated at Rupees 7 per diem, amounts to Rupees 6,377 0 0

Deduct—	Rs.	A.	P.			
1st.—Feed and keep...	1,751	2	9			
2nd.—Pay of establishment	710	4	3			
3rd.—Arrears paid for 1872-73 ...	404	4	4			
				2,865	11	4
Saving effected...				3,511	4	8

This is an improvement on last year of Rupees 625-6-4. The annexed table shows value of work performed by Government elephants compared with the results obtained by hiring animals:—

——	Number of Logs dragged.	Cost while so employed.	Rate per Log.	Number of Logs slipped.	Cost while so employed.	Rate per Log.
1	2	3	4	5	6	7
		Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
By Government elephants	1,471	1,698 13 6	1 2 6	1,197	1,166 13 0	0 15 8
By hired do. ...	114	493 12 0	3 12 6	481	1,206 8 0	2 10 1
Total...	1,585	2,192 9 6	.....	1,678	2,373 5 0	.....

10. *The Government Cart Establishment.*—The value of work performed, calculated at rates payable to contractors, exceeds the cost of maintenance by Rupees 65-0-6,—an insignificant surplus, but a decided improvement on the last two years; and it is only fair to remark that the establishment has accomplished the removal of much timber which nothing would induce contractors to attempt. During the year four bullocks have died, and one was killed by a tiger; fifty-one head of cattle remain. The particulars of work are shown below:—

From	To	Number of Logs carted.	Description of Timber.	Cubical Contents.	Rate per Cubic Foot.	Rate per Log.	Amount.	Total.	Remarks.
					Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Adivarum ...	Settumadai ...	17	Rosewood ...	299 11 10	0 1 0	.....	18 11 11		
		15	Teak wood ...	326 10 3	0 1 0	.....	20 6 10		
								39 2 9	
Settumadai ...	Anamalai ...	20	Do.	584 1 4	.....	1 0 0	20 0 0		
		14	Rosewood ...	263 6 6	.....	1 0 0	14 0 0		
								34 0 0	
Do. ...	Coimbatore ...	17	Teak wood ...	375 3 1	.....	5 0 0	85 0 0		
		1	Do.	19 11 5	.....	5 8 0	5 8 0		
		1	Velvagai ...	17 0 2	.....	5 8 0	5 8 0		
								96 0 0	
Adivarum ...	Do. ...	87	Rosewood ...	2,438 6 6	0 8 0	.....	1,219 4 *4		* Removed on sling carts. The cubic contents show close measurement not real bulk of timber; the cost is debited to sound wood only.
		11	Teak wood ...	249 9 0	0 4 0	.....	62 7 0		
		81	Bandy-loads of fire-wood at Rs. 4 per bandy.	.....	.....	.....	324 0 0		
								1,605 11 4	
Do. ...	Anamalai ...	115	Rosewood ...	.....	.....	1 4 0	143 12 0		
		72	Do.	1,335 4 11	.....	1 0 0	72 0 0		
		517	Teak wood ...	.....	.....	1 4 0	646 4 0		
		139	Do.	.....	.....	1 0 0	139 0 0		
		161	Do.	4,105 10 1	.....	1 0 0	161 0 0		
		5	Velvagai ...	145 7 8	.....	1 0 0	5 0 0		
		2	Vengay	72 0 3	.....	1 0 0	2 0 0		
		6	Karamardoo ...	130 10 4	.....	1 0 0	6 0 0		
		3	Nunjacadumba.	.....	.....	1 0 0	3 0 0		
		1	Karuvagai ...	.....	.....	1 0 0	1 0 0		
		3	Vagai	.....	.....	1 0 0	3 0 0		
								1,182 0 0	
Anamalai ...	Coimbatore ...	2	Teak	79 0 2	.....	6 0 0	12 0 0		
		65	Do.	.....	.....	6 0 0	390 0 0		
		59	Do.	1,143 5 5	.....	5 0 0	295 0 0		
		16	Rosewood ...	259 1 5	.....	5 0 0	80 0 0		
		2	Vengay	72 0 3	.....	6 0 0	12 0 0		
		11	Velvagai ...	275 6 0	.....	5 0 0	55 0 0		
								844 0 0	

From	To	Number of Logs carted.	Description of Timber.	Cubical contents.	Rate per Cubic Foot.	Rate per Log.	Amount.	Total.	Remarks.
					RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	
Anamalai ...	Oodamulpettah.	5	Teakwood ...	75 0 0	.....	5 0 0	25 0 0	25 0 0	
Takeady	Anamalai ...	8	Vagai	.....	.....	1 4 0	10 0 0	10 0 0	
Forest depôts ...	Top of ghaut...	125	Rosewood ...	3,480 0 4	0 4 0	.....	870 0 1		
		52	Teak wood ...	850 8 6	0 3 6	.....	186 1 6		
		25	Junglewood ...	474 9 1	0 2 0	.....	59 5 6		
								1,115 7 1	
							Total...	4,951 5 2	

11. *Demarcation and Survey.*—I am indebted to Mr. Baber, Assistant Superintendent in charge of Polachy Taluq, for the information on which the following remarks on survey operations are chiefly based.

12. The work taken in hand was (1) the demarcation and survey of part of the district boundary line between Coimbatore and Malabar, and (2) the demarcation and survey of the leased forest which lies in Malabar to the west of Toonacadavoo.

13. The district boundary line, starting from the source of the river Meengarai, runs to Coochmullai Peak; thence, crossing a deep valley, it reaches Pundaramullai and continues due south to Vengolimullai, the trijunction of Cochin, Malabar, and Coimbatore.

14. The leased forest is situated immediately to the west of this line, bounded on the south by a ridge of hills running west from Vengoli, and on the west and north by a river and stream, respectively. The area of this tract is estimated at 30 square miles; it is covered with heavy bamboo jungle interspersed with dense ever-green sholas, and abounds in Teak, Rosewood, Vengay, Karamardoo, and other timber-trees.

15. The work was carried out under the superintendence of Mr. Baber, who, although he had to conduct the regular work of his department on the plains, and was consequently unable to remain in the forest, managed to pay occasional visits of inspection, and it is to his method and energy that results are mainly due.

16. The task of supplying the necessary labor for clearing lines and other demarcation purposes devolved on the Forest Department. It is satisfactory to observe that the loss by non-attendance was but small; during the four months' operations only three days' delay occurred out of a total of 345 working days.

17. The following statement shows the nature and quantity of work performed :—

Line.	No. of linear miles of Jungle cleared.	No. of Marks set up.			No. of Stations surveyed.	No. of linear miles demarcated.	No. of linear miles surveyed.	Remarks.
		Station Stones.	Off sets.	Total.				
District boundary.	6½	47	...	47	47	8¾	8¾	Three miles remain to be surveyed.
Leased forest.	19½	415	30	445	364	22	19	
Total...	26	462	30	492	411	30¾	27¾	

18. Rough stone was used for demarcation, except on parts of the district boundary, where it was necessary to use stones of the quality and dimension prescribed by Demarcation Rules. Wherever practicable large rocks were used for station-marks. On the stones along the district boundary the Government broad arrow and a Z were cut; along the leased forest lines a Z only was cut. The country south and west of this line is claimed by Cochin, but no settlement of boundaries has taken place.

19. The six and-a-half miles of jungle clearing on the district boundary, shown in the statement above, is almost a due north and south line, averaging twenty feet in breadth. Along the boundaries of the leased forest such lines only were cut as were absolutely necessary for survey; this proved sufficiently heavy work owing to the density of the jungle through which the whole line runs.

20. The total cost of the outturn for the season was as follows:—

	RS.	A.	P.
Pay and batta of Survey and Demarcation Establishment includes 20 per cent. for supervision	865	9	7
Charges for hire of coolies employed in cutting lines. } Expended by Survey Department	400	0	0
Do. by Forest do.	1,168	12	8
	2,434	6	3

This gives an average of Rupees 79-2-8 per linear mile and of Rupees 81-2-4 and Rs. 0-2-3 per square mile and acre, respectively.

21. Excluding all charges for supervision, the outlay on demarcation is Rupees 1,568-12-8, giving the following averages:—

	RS.	A.	P.
Per linear mile cleared and demarcated	51	0	3
Per square mile demarcated	52	4	8
Per square acre do.	0	1	3

22. These rates bear comparison with those for similar work performed in the Burmah, Mysore, and Coorg forests, where, as shown in the several Administration Reports from 1868-69 to 1871-72, the cost varied from Rupees 15-4-0 to Rupees 53-7-0 in the first and from Rs. 36-9-9 to Rupees 52-9-0 in the second. In the Nagar range, where this work was done by contract, it cost Rupees 60 per mile.

23. The charge for survey and supervision is heavy, because it was absolutely necessary to employ subordinates on high rates of pay.

24. Operations commenced in September and continued till the middle of December. The season was, on the whole, favorable; only eleven days were lost by rain and sickness. It proved quite impossible to carry on work beyond the middle of December,—a time when these forests become extremely unhealthy; a little survey remains, therefore, to be completed this year.

25. Considering that the scene of operations was remote and unhealthy, the season limited, labor (with the exception of Kaders) nonresident and expensive, and that supplies had to be brought from a distance of twenty miles, the results are satisfactory, especially for a first attempt. The cost upon the whole may be regarded as moderate when compared with the demarcation and survey of waste lands in Wynaad where the average is 8 Annas per acre.

26. Other operations, such as clearing of brushwood, fire-tracing, repairs to roads and bridges, etc., call for no special remark.

27. The expenditure on departmental operations is less by Rupees 7,291-4-3 than that incurred the year before as shown in the following table, compiled from Appendix A, excluding the cost of "*Plantations*" and other charges not strictly pertaining to this Section :—

Year.	I., Timber Expenses.	II., Purchase of Tools.	III., Feed and keep of Cattle.	VII., Conservancy.	VIII., Survey.	X., Roads and Buildings.
	RS A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
1872-73 ...	15,431 5 9	57 13 0	8,296 4 4	1,248 3 0	*Nil.*	3,996 12 1
1873-74 ...	8,752 2 3	*Nil.*	6,474 2 6	1,298 5 11	1,168 12 8	4,045 10 7

28. The saving has been effected chiefly under heading No. I., "*Timber Expenses,*" in consequence of a decrease of Rupees 8,324-1-0 in the expenditure on transport of stock by contract as compared with the out-goings of the year preceding, which amounted to Rupees

11,580-6-0. Works of utility have not been allowed to suffer; conservancy, roads, and buildings have all been duly provided for, while a new item of Rupees 1,168-12-8 occurs under heading VIII., "Survey."

29. The revenue derived from the reserved forest exceeds that of the previous year (when only Rupees 8,280-11-6 were realised) by Rupees 55,539-7-9. This increase is partly ascribable to the sale of Rosewood to the Madras Gun Carriage Factory, amounting to Rupees 23,732-11-0,—a larger transaction than we have accomplished with that department for many years,—and partly to the adjustment of an outstanding account of Rupees 32,972-3-3 due by the Bombay Marine.

30. The other sales do not call for special mention.

31. Before treating of the contemplated operations for 1874-75, it will be convenient to refer to those described for 1873-74 in the last Administration Report, and observe to what extent they have been successfully carried out; the chief features of the programme were—

(*A.*) *To deliver at Pothanore for the Madras Gun Carriage Factory* 8,000 *cubic feet of Rosewood* (*Dalbergia latifolia*) *and* 5,000 *cubic feet of Teak.*—Of the Rosewood 7,910-10-9 cubic feet were delivered at Rupees 3 per cubic foot, and the price, amounting to Rupees 23,732-11-0, brought to account within the year. Of the Teak only 550-0-3 cubic feet were supplied, realising Rupees 1,375-0-10 at Rupees 2½ per cubic foot. The sum of Rupees 25,107-11-10 has, therefore, been secured out of Rupees 36,500, the aggregate selling value of the whole indent. It is merely necessary to explain that Teak *planking*, split or sawn, was required and not logs; no fresh Teak was felled, as there is a large stock on hand, out of which most of the planking has been sent to the coast depôts, and was, therefore, not available. Other unexpected sales have, however, been effected, amounting to Rupees 5,537-4-2, to the Central Jails at Salem and Vellore, to the Department of Public Works, and Madras Railway Company, etc.

(*B.*) *To fell and square as many old girdled Teak as possible, and to trim up and store all waste Timber.*—Considerable progress has been made in this important work. Eighty-seven trees are felled, which, together with the yield of other waste Teak, produced 13,748 cubic feet, the whole of which has been stored in roadside depôts, besides 723-7-0 cubic feet of Vengay and Karamardoo.

(*C.*) *To convey the balance of Stock in roadside Depôts to top of Ghaut.*—The balance of stock at the close of last year was 478 logs as stated in paragraph 5 under Section V., and during the past year 402 logs have been removed; this, as it happened, was mostly new timber and not that specially referred to; but the proposed amount of work has been nearly accomplished.

(*D.*) *To slip from top of Ghaut to Adivarum as much as possible of the Timber brought from forest Depôts in* 1872-73.—The number of logs slipped is 1,678, of which 1,083 are logs brought in from forest depôts in 1872-73; the whole of the timber will be slipped before the end of June.

(*E.*) *To convey to Anamalai a portion of the Stock in Depôt at foot of Ghaut.*—Government carts have removed 757 logs to Anamalai; other removals have also been effected by contract as well as by Government agency. The whole of the timber at foot of ghaut will be conveyed to Anamalai by the end of June.

(*F.*) *To erect suitable quarters for Overseers at Anamalai.*—This has not been accomplished, but good and inexpensive building have been constructed at a distance of 6 miles from Anamalai, 2 from foot of ghaut, and about 10 from Toonacadavoo, which will greatly facilitate supervision during the nonworking season and save the long march to and from Anamalai, which has hitherto been a heavy addition to a day's labor.

(*G.*) *To help the improvement of the Road between Anamalai and the Depôt at Adivarum.*—The department has as yet performed no portion of this work, but a sum of money was allotted from Local Funds and nearly two-thirds of the distance has been put in order.

(*H.*) *To prosecute Demarcation and Survey Operations.*—The boundaries of the leased forest have been demarcated and the survey is nearly complete. The northern limit of the Government forest below ghaut has been settled from the Meengarai river to Adivarum,—a distance of over 7 miles, along which boundary stones have been fixed.

32. *Contemplated Operations.*—During the past year inquiry has been directed to the best means of disposing of the large stock of timber still on hand, most of which, owing to the extensive carting operations of 1872-73, has now been stored in accessible localities. The main object, therefore, will be to turn to good account the labors of the past two years. The manner in which this may be effected has been explained to the Board of Revenue who have approved the general plan of operations suggested, and the question is now before Government. If early orders are passed, arrangements will be made, first, for selling by auction or otherwise, should opportunity be favorable, at Bombay an annual consignment of the best Teak and Rosewood; second, for establishing a local market for Anamalai timber by a judicious system of depôts, sales, and advertisements. A reserve of timber will be maintained in order to meet the requirements of the Public Works and Ordnance Departments as well as of the railway. A certain portion of the stock will be sawn up. Much depends upon the result of these operations, the prospects of the range will be largely influenced thereby, and, in order to ascertain the most remunerative method, it will be necessary for the Deputy-Conservator to devote much of his time to this special branch of work.

33. The Madras Railway Company have applied for 800 bridge-sleepers $12'' \times 12'' \times 6''$ and 200 crossing-sleepers $16'' \times 12'' \times 6,''$ or in all 6,421 cubic feet. This indent may lead to others if successfully met; there is, in fact, as I am informed by an officer of the Company, the prospect of an annual demand.

34. A small trial consignment of Teak will be sent to England for the use of Her Majesty's Dockyard, the price being regulated by the current market-rate for Burmah timber of the same stamp. It will, I fear, be no easy matter to obtain a footing in the home market where, it would appear, Burmah wood has long been established, and where an opinion adverse to the Malabar article seems to prevail amongst authorities.

35. About 3 acres of Teak will be planted, and, as an experiment, partial clearance *only* will be adopted, all large trees being left standing. The site will be quite away from the present openings.

36. The conservancy of natural forests by clearing young trees of brushwood, eradicating creepers, and fire-tracing promising blocks of young timber before the dry season, will be attended to as much as possible, but the establishment is barely equal to the occasion.

37. Demarcation will, it is expected, continue; every effort will be made to help the Survey Department.

38. Comfortable quarters for European Overseers at Anamalai are greatly required; they need not cost much; accommodation has hitherto proved wretchedly inadequate, although the majority of the establishment have been natives who were able to secure lodgings in the village.

B. Fuel-reserves.—The demarcation and survey of the tract mentioned in my last report, has progressed during the year, but there are several matters connected with its strict reservation to which attention must be devoted ere it is finally closed to the public. The land lies between two chains of hills running nearly due east and west; it is thus on its north and south sides naturally enclosed, but open at the ends, one of which (the east) abuts on a public road, the other on the forest property of the Nambudri of Colungode, the main line of export from which cuts the reserve in half. If people and cattle are to be rigidly excluded, the reserve must either be fenced on the east and west, which involves the question of a right of way, or a fence must be constructed round three sides of the two blocks, into which it is divided by the route to the private forest aforesaid, and this involves considerable outlay. Heretofore every petty obstruction has caused a divergence, and the road in consequence occupies much more space than it ought; indeed, for a portion of the distance there are two or three distinct lines; this, of course

is most destructive to the forest, and if traffic cannot be stopped altogether it must at least be confined to one line. If a right of way be established, the choice rests between two plans: one of fencing the forest on each side the road and the total exclusion of trespassers; the other of endeavoring to restrict the traffic to one line, and within the forest to close from time to time only such parts as threaten to degenerate, while in the barer spaces fuel and bamboos might be propagated by broad-cast sowing.

2. The broad-cast sowing of bamboo and fuel-seeds is well worth trial, as, if at all successful, it is by far the best means of restoring impoverished tracts. An attempt will this year be made to rear bamboos and Babool at the foot of ghaut in some land recently acquired by the department. Some useful hints and facts may, it is hoped, be derived from this experiment for future guidance in more extended operations should such be authorised.

3. To secure land easy of access and of sufficient extent would be of great benefit if devoted to the cultivation of fuel and worked on a regular system.

4. In Oodamulpettah Taluq an area of between 9,000 and 10,000 acres of waste land is at present unoccupied. For much of this durkhasts have been made; it is, therefore, under reference to the department, and will be inspected and reported on during the ensuing season.

C. PLANTATIONS.—The following statement furnishes the particulars called for in Revenue Board's Proceedings, dated 27th January 1874, No. 133:—

Name of Plantation.	Year in which formed.	Area.	Description of Trees.	No. of Trees.	Cost.	
					During the Year.	Up to the Year.
					RS. A. P.	RS. A. P.
1. Moodi	1870	8	Teak.	8,439	788 10 0	1,598 9 11
2. Toonacadavoo ...	1873	8	,,	3,680	866 12 0	999 12 0

2. Both these plantations are experimental: in that of 1870, 2,261 casualties have occurred, and will be replaced next season; in that of 1873, 4,661 casualties have occurred which will also be replaced; only the actual number of plants established at the time of writing this report are given above. The plantation of 1870 has improved; growth is slow as compared with Nellambore, but better results than those hitherto recorded are, I believe, obtainable. The large number of casualties are attributable in great measure, I think, to the distance we have had to convey plants.

SECTION III.

LICENSE AND VOUCHER FORESTS.—When this system was introduced in 1867-68 the Deputy-Conservator appears to have expected that it would develop sufficiently to form the staple source of revenue of the range, and by covering cost of establishment and working obviate deficits, leaving all sales of Teak, Rosewood, etc., a clear profit to Government.* Results have, however, fallen short of this standard, which, considering that the system is only applied to the lower slopes and less valuable forests of the Anamalais is rather a high one,—higher, I fancy, than we are ever likely to attain. During the seven years of its existence the license system has yielded a total revenue of Rupees 17,007-1-8, while the total charges of the range amount to Rupees 2,67,717. At the same time, receipts are increasing, and are, I think, capable of further augmentation.

Vide paragraph 4 (b) of Administration Report for 1867-68.

2. The receipts for the year amount to Rupees 3,963-13-9, the highest sum yet realised, and Rupees 656-2-6 more than that collected in 1872-73. Since November last the commission payable to Monegars and others collecting seigniorage has been deducted from the moneys passing through their hands, instead of as heretofore being disbursed by cheque. The result is that

Rupees 87-10-1 is not shown in the accounts as revenue, though collected as such, it having been paid as commission; it is, however, as well as the sums realised by sale of confiscated timber, etc., belonging to these forests, included in the amount specified above.

3. The expenditure for the year, which consists of the pay of Overseer, Peons, commission, etc., and one-twelfth of the range officer's salary amounts to Rupees 1,892-2-0. There is no material difference in expenditure to record, except that arising from the addition of a share of the Deputy-Conservator's salary not hitherto imposed, except for the purposes of calculation in paragraph 10 *et seq.*

4. The subjoined table shows in such detail as the records enable me to furnish the annual removal of various kinds of produce since the introduction of the system :—

Year.	Timber.	Fire-wood.	Bamboos.	Charcoal.	Canes.	Gall-nuts.	Valum Bark.	Remarks.
	C. FT.	TONS.	BANDIES.	MDS.		MDS.	BANDY.	
1867-68 ...	1,800	1,352⅛	1,497¼	162⅖	...	...	...	
1868-69 ...	...	...	...	...	...	...	...	Quantities not given for 1868-69.
1869-70 ...	1,100	499	1,512$\frac{5}{32}$	284⅖	...	...	...	
1870-71 ...	...	...	...	...	...	...	...	Not obtainable, as the Oodamulpettah Tahsildar did not give particulars of the quantity of timber, etc., issued.
1871-72 ...	404¼	344$\frac{1}{3}\frac{6}{5}\frac{2}{8}\frac{9}{4}$	1,948$\frac{1}{2}\frac{3}{4}$	768	800	380⅘	..	
1872-73 ...	322	330$\frac{3}{3}\frac{0}{5}\frac{5}{8}\frac{5}{4}$	2,987$\frac{5}{24}$	1,306⅖	600	...	1	
1873-74 ...	192	346$\frac{3}{3}\frac{1}{5}\frac{1}{8}\frac{1}{4}$	3,993$\frac{1}{2}\frac{9}{4}$	1,457⅗	1,200	...	..	

Major Beddome calculates one bandy-load of timber at 20 cubic feet; but in this Office 16 cubic feet per bandy-load is taken, 1,000 lbs. of fire-wood = bandy-load.

5. The Board desire information as to which is the cheapest and most economical system,—the departmental or the license and voucher. A reliable comparison appears possible only in cases where the two plans have been carefully watched for a sufficient number of years, and unless ranges can be selected where operations have been conducted on a suitable scale in pursuance of some such inquiry, it will, I think, prove exceedingly difficult to elicit a sound opinion.

6. Considering the limited scale on which the license system has hitherto been carried out in this Range, my views on the subject must necessarily be imperfect. It seems to me, however, that the license system will very generally prove the cheapest, though not so frequently the most economical.

7. Neither system is capable of universal successful application. As Government observe in reviewing the operations of the department for 1871-72, there are two classes of forests, to one of which,—the most valuable,—the departmental, and to the other,—the ordinary jungles of the country,—the license system will, on the whole, be found the most suitable. This, I imagine, is a tolerably accurate summary of the facts of the case. The introduction of rigid departmental management in tracts which before the existence of a Forest Department were accessible to all, and which subsequently have been placed under the license system would often produce inconvenience and discontent. But, of course, emergent cases would require special treatment and where the most stringent measures of conservancy are required the best results are obtainable under departmental working.

8. In this range the license system is in an undeveloped state and susceptible of considerable improvement; but it is applied to tracts inferior to, and totally different from, the reserved forests. On the one hand, is a remnant of jungle which, in the interests of the community, it is absolutely necessary to protect from the further encroachments of cultivation, with the

advance of which the demand for agricultural implements, fuel, and building material, must increase, while the principal source of supply is diminishing; for example, the area of cultivation in Anamalai village alone has increased from 9,194 acres to 39,000 in a period of less than thirty years; on the other hand, are extensive and valuable timber forests, eminently unhealthy, remote from the villages of the plains, and uninhabited, except by a few wandering jungle-tribes.

9. The license system will probably, in ordinary cases, be found to suffice for the conservancy of 2nd-class forests. It may not be so remunerative in mere cash-receipts as heretofore, owing to the strengthening of establishments which the effectual administration of suitable regulations will render indispensable. Where revenue is a secondary consideration however, and the object is rather to prevent waste and provide for communal requirements, without entirely closing forests of general resort, the issue of licenses may with advantage be restricted and a system of depôts introduced where the selling rate should be as low as the actual outlay on storage, etc., may permit.

10. The annual results of the two methods since the commencement of the license system in 1867-68 are given below :—

Year.	Revenue.		Charges.		Results.	
	Reserved Forests.	License Forests.	Reserved Forests.	License Forests.*	Reserved Forests.	License Forests.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1867-68	57,980 11 6	978 4 6	32,461 1 7	748 14 5	+25,519 9 11	+ 229 6 1
1868-69	27,809 4 9	2,679 11 3	28,783 0 3	2,261 15 9	— 973 11 6	+ 417 11 6
1869-70	86,764 9 6	2,150 6 6	36,500 7 8	2,115 8 4	+50,264 1 10	+ 34 14 2
1870-71	16,036 4 0	1,479 12 0	46,685 0 2	1,521 15 10	—30,648 12 2	— 42 3 10
1871-72	54,369 9 7	2,447 6 5	36,469 10 1	1,670 5 11	+17,899 15 6	+ 777 0 6
1872-73	8,341 4 9	3,307 11 3	40,765 9 10	1,853 6 2	—32,424 5 1	+ 1,184 5 1
1873-74	63,820 3 3	3,963 13 9	33,977 10 6	1,903 2 0	+29,842 8 9	+ 2,060 11 9
Total...	3,15,121 15 4	17,007 1 8	2,55,642 8 1	12,075 4 5	+59,479 3 6	+ 4,661 13 3

* A share of $\frac{1}{12}$th of range officer's salary is charged to the license system, though not formally exhibited in accounts.

11. It would thus appear that the average expenditure on the departmental system is Rupees 36,520-5-8, while on the license system it is Rupees 1,725-0-7, resulting in an average surplus of Rs. 8,409-0-6 in the former and of Rupees 665-15-7 in the latter.

12. It may also be useful to compare the transactions of the departmental system during the eleven years preceding the adoption of the license system with those of the seven subsequent thereto :—

Period.	Revenue.	Charges.	Surplus.	Average Revenue.	Average Charges.	Average Surplus.
1	2	3	4	5	6	7
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1856-57—1866-67	5,81,165 0 0	3,55,171 0 0	2,25,994 0 0	52,833 2 11	32,288 4 4	20,544 14 7
1867-68—1873-74	3,15,081 14 10	2,55,653 8 1	59,428 6 9	45,011 11 3	36,521 14 10	8,489 12 4

13. The value of stock is not included in these calculations, but it will answer all purposes if to the total surplus in column 4 is added the value of stock on 31st March 1874, viz., Rupees 1,42,928. The result is Rupees 4,28,404 which gives a real average profit for the eighteen years of Rupees 23,800-3-6 against an average expenditure of Rupees 33,931-11-3.

14. The difference in the average surplus of revenue for the periods is remarkable, and indicates the difficulty of instituting a trustworthy comparison between the two systems under notice. As stated in my last Administration Report the revenue has been as high as Rupees

2,65,953 and as low as Rupees 75. It may be well, however, to observe that the difference in average is not ascribable to a loss by the transfer of forests from the departmental to the license and voucher system; the reserved forest has in no way been encroached upon. The increased price of labor accounts, in great measure, for the increase in the annual outlay since 1866-67. Transport of wood also becomes more expensive as necessity arises for working the remoter tracts.

Contemplated Operations.—In the absence of better and fuller regulations little or nothing can be done in real conservancy; systematic operations must remain in abeyance until a well digested Code is placed in every officer's hands. Upwards of two years ago the republication of certain old rules was suggested, the reorganisation of the department intervened, and at the request of the Conservator (Collector) an amended set was compiled. It is hoped that this may before long be issued; it contains little that is new, nothing oppressive, and embraces most of the best rules which, from time to time, have been introduced; it will at least serve to check irregularities.

2. The coming season will be best employed in collecting information as to extent and resources and in watching the operation of the system now in force and in repressing the abuses to which it has been subjected.

SECTION IV.

Yield of Forests.—The quantity of timber removed and sold departmentally on licenses and granted free is given below :—

Timber.			Fire-wood.			Bamboos.		Charcoal on paid Licenses.	Canes on paid Licenses.	Remarks.
Departmentally.	On paid Licenses.	On free Passes.	Departmentally.	On paid Licenses.	On free Passes.	On paid Licenses.	On free Passes.			
C. FT.	C. FT.	C. FT.	TONS.	TONS.	TONS.	BANDIES.	BANDIES.	MDS.	NO.	
24,345 9 3	192 0 0	2,368	$36\frac{9}{56}$	$346\frac{311}{3584}$	$28\frac{1}{8}$	$3,993\frac{19}{24}$	467	$1,457\frac{3}{5}$	1,200	

SECTION V.

Financial Results are an improvement on last year, when a deficit of *Rupees* 6,310 had to be recorded. Appendix D gives details of stock at the close of the year, amounting to Rupees 1,42,929 against Rupees 1,62,261 for the year previous.

Receipts.	Expenditure.	Difference.	Increase or Decrease in Stock.	Net Results.
RS. 67,696	RS. 35,880	RS. +31,816	RS. —19,332	RS. +12,484

The estimated amount of revenue was Rupees 60,000, which has been exceeded by Rupees 7,696.

SECTION VI.

General Remarks.—During the last three years the number of forest-offences reported is fourteen; two were not prosecuted, and of the rest three were dismissed, and nine proven. Five cases of assault on peons while in the execution of their duty are also said to have occurred.

Complaints have, from time to time, been made by the License Overseer that the infliction of fines by the magistracy has but little deterrent effect, and he laments the rarity of sentences of imprisonment. So far, however, as facts enable one to judge the punishments awarded have been effectual, or, if not, the small number of cases brought to notice is indicative of a lack of vigilance on the part of the Forest establishment.

2. Had certain information reached my Office in time, I might have supplied more ample and valuable statistics relating to the important question of free passes for timber, fuel, etc.

3. I submit a statement of the issue of free passes since their introduction in 1870, and beg to observe that the particulars of each year's distribution have been duly recorded in the several Administration Reports:—

Year.	Timber.	Fire-wood.	Bamboos.	Remarks.
	C. FT.	TONS.	BANDIES.	
1869-70...	4,711	211	239 1/8	
1870-71...	1,840	295	638	
1871-72...	7,033	197 3/4	1,124	
1872-73...	4,368	148 37/560	347 7/24	
1873-74...	2,368	28 1/8	467	
Total ...	20,320	879 521/560	2,816 1/8	

4. I regret my inability to estimate, even approximately, the actual quantity of material consumed free in the range. Peons, etc., could doubtless, if they would, throw some light on the matter. From the number of Permits issued, it appears that the authorities to whom the trust is confided have not acted without discrimination. A very large quantity of fuel bamboos, timber, etc., finds its way to the local markets of Polachy and Oodamulpettah from private forests. The Numbudri of Colungode works his forests on contract to merchants who resell to the public. Considerable tracts of forest are held on putta. Many ryots retain patches of jungle in their holdings: thus, though the consumption in the range was proved to be, as it doubtlessly is, far in excess of the quantities obtained from Government forests on Passes, free or paid, the difference would be no reliable guide to clandestine removals owing to the large supplies obtainable from other sources. If the matter is considered of sufficient importance in this range, the best way possibly would be to post Peons on the main lines of traffic on the different market-days to count the number of cart-loads, etc., brought in. This, compared with the number of licenses issued by Government, might render a rough estimate feasible.

5. At present, I can only furnish an outline of the manner in which the privilege has been exercised in the Anamalai Division of the Polachy Taluq, reserving fuller details for another occasion. The total number of villages in the division is 30, the population 53,707, and the kist paid Rupees 72,199-2-5.

6. The following table shows among what villages and to how many puttadars free Passes have been granted, the amount of kist paid by them, and the quantity of material granted:—

Village Number.	Names of Villages.	Number of Puttadars to whom free Passes were granted.	Assessment paid by Puttadars.	Number of Bandy-loads.				Value			Total.	Remarks.
				Timber.	Ploughs, etc.	Fuel.	Bamboos.	Ploughs, etc.	Fuel.	Bamboos.		
			RS. A. P.					RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	
96	Anamalai	17	2,776 0 8	...	18	7	35	36 0 0	7 0 0	26 4 0	69 4 0	The value of the grants is about $\frac{1}{20}$th of the assessment paid by grantees, $\frac{1}{130}$th of the whole amount collected from the thirty villages, and is equivalent to $\frac{1}{7}$th of the revenue derived from the license forests.
102	Sungumpollium...	4	116 2 0	...	4	2	4	8 0 0	2 0 0	3 0 0	13 0 0	
128	Odayacolum ...	16	450 2 7	...	7	5	18	14 0 0	5 0 0	13 8 0	32 8 0	
131	Kaleyapooram ...	20	1,447 12 7	...	15	3	25	30 0 0	3 0 0	18 12 0	51 12 0	
130	Vattacarunpudore.	131	3,080 7 6	...	84	22	110	168 0 0	22 0 0	82 8 0	272 8 0	
112	Kottore	32	2,222 13 10	...	20	23	33	40 0 0	23 0 0	24 12 0	87 12 0	
100	Somundorai ...	1	51 4 0	...	1	1	1	2 0 0	1 0 0	0 12 0	3 12 0	
115	Arthanaripollium.	1	.....	...	1	...	1	2 0 0	.....	0 12 0	2 12 0	
17	Marchinaicken-pollium... ...	1	38 0 0	...	1	...	...	2 0 0	.....	.....	2 0 0	
					Head-loads.		20	.....	.....	0 10 0	0 10 0	
	Total...	223	10,182 11 2	...	151	63	227	302 0 0	63 0 0	170 14 0	535 14 0	

7. The value of the grants compared with the amount of kist paid by the recipients is low and the quantity moderate ; moreover, considering the population and the amount collected from the 30 villages of the division, it may be reasonably inferred that some care has been employed in the selection of individuals from amongst numerous applicants.

8. The order excluding strangers from the reserved forest has been enforced during the year, but not so thoroughly as it might have been or as in time it will be. As was to be expected the traders in forest-produce petitioned the Board of Revenue making out a very hard case ; the matter was referred to the Collector who called on the Deputy-Conservator for reports. I have invited all traders to send in details of their claims against the Kaders and a most formidable array of documents has resulted ; the Board have directed that traders should be admitted under certain regulations and to such extent only as is consistent with the safety of Government property. The people most concerned are the Kaders, from whom no complaints have emanated, who are perfectly satisfied with the working of the order, and of whom twenty enrolled themselves last December on Government service, and executed an agreement for one year. It remains to be seen what can be done with this gang. I have long been contemplating some such arrangement, and from the admirable way in which they worked for us last season in demarcating and survey I entertain hopes of success. But for the Kaders survey operations must have come to a stand-still, and, as the work progresses and the southern limit of the district on the Cochin and Travancore frontiers has to be determined, their services will be simply invaluable. Equally important will their aid be in regular forest-work as guides and hutters in the clearing and pruning of young trees, cutting creepers, and in taking precautions against fires. That they might be usefully and profitably employed in the collection of forest-produce is evident ; but as no special sanction has been received, I have rigidly abstained from any attempts in that direction. Their position in the reserved forest has been thoroughly explained to them. Pains have been taken to assure them that their cherished rights to wild produce shall in no way suffer or be interfered with, that they and Government are co-proprietors, and that no one else has any right of entry. They have been told to come and go as they choose, and to sell or barter as suits them. I have declined to purchase cardamoms, etc., when solicited to do so. So far, then, as the order affects the aborigines, there is nothing to complain of. As to its influence on the people of the neighboring plains, it can hardly be oppressive, for the limits of the reserve are miles beyond the most outlying hamlet, besides which forest conservancy has been a recognised institution here since at least 1848, and considering the area of the Anamalais, their remoteness, and the few inhabitants, amongst whom neither cultivation nor cattle-breeding obtains, a more appropriate reserve could hardly be found.

9. Shortly after the reorganisation of the department, the Collector, in his capacity of Conservator, notified in the Gazette that under the new régime the orders of the range officer in all forest-matters were to receive that respect from Tahsildars, Revenue Inspectors, and others to which as coming from the Collector's Assistant they were entitled. This has been productive of much good ; for, though the revenue authorities have never displayed a reluctance to co-operation, it has tended to impress the scope of the amalgamation of departments more thoroughly on district officials and rendered the influence of the Deputy-Conservator more effectual.

10. Another most important order was promulgated in 1872, strictly prohibiting the alienation of jungle land for cultivation or other purpose without consultation of the special department through the Conservator of the district. The purport of the Board's order, dated 17th August 1869, No. 151-6, is much the same, but evasions which, under various pretexts, were not uncommon, have ceased to occur.

11. A set of brief plain rules has been compiled regarding land formerly Kumari, and the future exercise of this cultivation by jungle-tribes. Under these rules, it is proposed to confine the tribes to such land as has once been subjected to the process. A tract will be granted on cowle to each family after inspection and demarcation ; its area will be regulated by circumstances ; the idea is to afford each family sufficient space for cultivating on the rotation most adapted to climate,

soil, aspect, etc., by yearly allowing three-fourths, five-sixths or nine-tenths of each grant to remain fallow. By this means it is hoped to suppress the further extension of Kumari to virgin forest, and to provide for the wants of the jungle-people whose well-being is of such great importance to the district. This is a most interesting experiment, and, if successful, will remove a grave difficulty. Before any land is assigned it must be inspected by a Forest Overseer, and, if need be, by the Deputy-Conservator. These rules do not concern the reserved forest, but will be of wide application in the Ponachy, Poondi, and Thalunji forests.

12. In consequence of frequent changes, owing to sickness and other causes, the establishment has not been so useful as it ought. Fortunately, having no other range to occupy my attention, I was able to devote myself to reserved forest-work and contrived to get through operations with tolerable success.

13. The health of subordinates was much as usual : good while the southwest moonsoon lasted, indifferent as the cold weather approached, and bad as soon as the forest was left for the season. Two new Overseers who have since left (one resigned and the other has been transferred) were constantly ill. No deaths occurred. The Survey establishment enjoyed good health while in the forest, but not a man escaped fever on leaving and one Head Surveyor died.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) C. G. DOUGLAS,
Deputy-Conservator of Forests.

OFFICE OF DEPUTY CONSERVATOR OF FORESTS
COIMBATORE, 14*th May* 1874.

From

G. J. S. ROSS, Esq.,
Deputy Conservator of Forests, Coimbatore.

To

A. WEDDERBURN, Esq.,
Collector and Conservator, etc., etc., etc., Coimbatore.

SIR,—I have the honor herewith to submit my Administration Report for the official year 1873-74 of the Mettapolliem and Bolumputty Ranges.

SECTION I.

1. I have the honor to state that I took charge of the Mettapolliem Range on the 6th June 1873 from Overseer Muthusawmy Pillay.

2. I received the records of the Bolumputty Range from the Deputy Conservator Mr. Douglas on the 4th August 1873.

3. During the ten months in which the forests were under my control I have made twenty-two tours of inspection, and have been absent from head-quarters in all 143 days.

4. After I had inspected the Copenary Forests thoroughly I was greatly disappointed in the result of my inspection, both as regards the extent of the forests and the description of timber growing in them.

5. I have very little hesitation in saying that the forests in the neighbourhood of Copenary are almost valueless until properly opened up.

6. No bandy can enter the forest. The only road that exists, leading from Mongherry, is in some places more a rocky water-course than anything else, and I believe that in some parts it is even impassable for elephants in its present condition. I was unable to ride up a great part of it.

7. To repair this ghaut, and to keep it in condition, would cost Government much money, as in many places it passes through a ravine, and is exposed in the rainy season to torrents of water running down from both sides

8. A further drawback is that, should Government repair and keep in order this ghaut, it would simply be opening up the means of communication between the Rajah Aracorrachy Nair's forest and the Coimbatore merchants, as the ghaut can almost be taken as a boundary line in some places between the Rajah's and Government Forests; these forests are much richer than the Government ones, and the Rajah sells at one-fifth the Government seigniorage.

9. The Sholacaray Forests were, before they were put under the supervision of Imperial Foresters, too rudely handled and they require rest now.

10. There are, however, some matured teak trees in these jungles, and they will be felled this year.

11. The Bolumputty jungles require to be opened up by the means of roads, etc., in many places. There is some very valuable timber, but it is impossible to bring it down, even by elephants, to the plains. The money allotted for working charges is so small that it is impossible for me even to repair a road to any extent.

SECTION II.

(*a*). *Reserved Forests—Sholacaray Forests.—Vide* Sections 9 and 10.

2. (*b*). *Fuel Reserves.*—Reserve M has a superficial area of five square miles. It is fenced in, on three sides, *viz.*, on the eastern, southern, and western sides; the northern boundary being the hills.

3. The H Reserve is also fenced in on three sides; the northern boundary is formed by the river Bhowany. Area eight square miles.

4. The K Reserve is not yet fenced in, but it will be enclosed by the end of this year. Area six square miles.

5. I cannot report on the increased growth of the trees. Vhey have been preserved for too short a time to allow of any report being satisfactorily made, or their increase being satisfactorily noted.

6. Experiments will be made, however, this year for the purpose of fixing the increase of growth.

7. (*c.*) There is one so-called plantation in my range named Walliar Plantation.

8. It is composed partly of indigenous trees and partly of small plantations.

9. Bamboos are to be found in the plantation in large clumps, and it is most probable that many of the fires which occur in the plantation are due to the rubbing together of the bamboos. They will, therefore, be gradually removed and the spaces sown with babul, tamarind, etc.

10. There was at one time a stream of water which flowed past the plantation; an anicut was then made in order to irrigate the ground.

11. Had this succeeded there is no doubt but that the plantation would have been a successful one.

12. Unfortunately, however, as soon as the anicut was made the stream dried up without apparent cause, and has since remained dry.

13. I think it but right to state that I do not think this plantation will ever remunerate the Government for the money laid out; the casualties are about three-fourths of the plants transplanted.

14. I think it, therefore, advisable to stop any large operation in the way of planting and to confine ourselves more to wounding the ground and sowing broad-cost.

15. Under this head I have no receipts to show.

SECTION III.

Forest work under License and Voucher system.—I have the honor to remark that the Bolumputty Forests have hitherto and are still being worked under the License and Voucher system. I am, however, desirous of working them departmentally as far as timber is concerned; but, as before stated, this will require a net-work of roads being made before felling operations can be undertaken successfully.

2. Sholacaray Forests have hitherto been worked partly on licenses and vouchers, and partly departmentally.

3. The receipts of both ranges under my charge for the year under review has been Rupees 7,007, the disbursements Rupees 9,574, and the value of stock of timber on hand at the close of the year Rupees 3,061, and the financial result in favor of the forests Rupees 494.

4. The Mettapolliem Forests were let out on contract; the contractor was bound to pay Rupees 75 per month into treasury and to collect seigniorage at the regulated price for fuel, bamboos, etc.

5. Licenses for timber were issued by the department.

SECTION IV.

Yield of Forests.—Sold from depôt cubic feet of timber=4,676 cubic feet, and 917 bandy-loads of bamboos were removed by purchasers on license; 2,544 bandy-loads of fuel and 12 bandy-loads of Velum bark were removed on license.

25 Bandy-loads of grass.
64 Bandy-loads of charcoal.
329 Timber trees of various sorts.

Removed on Free Licenses.

27 Timber trees (jungle wood.)
87 Bandy-loads of fuel.
122 Bandy-loads of bamboos.

SECTION. V.

Financial Results.

Expenditure.

	Rs.	A.	P.
Working charges	2,441	8	3
Establishment	7,132	11	10
	9,574	4	1
Receipts	7,007	1	4
Deficit	2,567	2	9
Value of stock in hand at reserved price	3,061	2	11

SECTION VI.

As regards the conduct of the out-door establishment I regret that I cannot speak highly of it.

2. I was forced to suspend one Overseer for incompetency and insolence.

3. I trust, however, that the new Overseer will, by his example, infuse a healthier tone into the establishment.

4. The health of the Bolumputty establishment I regret to say has been bad.

5. I have lost during the last year from Walliar fever one permanent and one temporary Peon. The Overseer has also suffered for four months from the same sickness so as to be almost unable to render me any service whatever during that time.

6. The health of the Mettapolliem establishment has in all been fair; minor cases of sickness have occurred, but these can in no way be attributed to climatic influence, except in the case of one temporary Peon who died from Burliar fever.

7. Criminal prosecutions for offences committed against the Forest rules were brought before Magistrates, and the results are shown in the Appendices Nos. 15 and 16.

8. As far as I am aware, especially in the Mettapolliem range, the people see themselves the necessity of the forest being preserved. I have spoken to one or two of the leading inhabitants of Mettapolliem and they informed me that they considered the seigniorage charged by Government of one Rupee per 1,000 lbs. of fuel was in their estimation fair.

9. The charge for Bolumputty has always been less, as the people are of a poorer class, and the forests more inaccessible.

10. Although I have kept down the working charges as much as I could under the budget allotment the expenditure exceeds the receipts. I trust, however, that next year the revenue will be considerably larger.

I have the honor to be,
Sir,
Your most Obedient Servant,
(Signed) G. J. S. ROSS,
Deputy Conservator of Forests.

SATHIAMANGALUM FOREST.

Annual Administration Report of the Sathiamangalum Forest for the official year 1873-74.

The subject is treated as usual under the following sections:—

SECTION I.—Inspection tours of the Deputy Conservator.
SECTION II.—Reserves.
A.—Reserved forest and contemplated operations.
B.—Fuel reserves and contemplated operations.
C.—Plantations and contemplated operations.
SECTION III.—License and Voucher forests.
SECTION IV.—Yield of forests.
SECTION V.—Financial results.
SECTION VI.—General remarks.

SECTION I.

1. *Inspection Tours of the Deputy Conservator.*—In April, the sandalwood plantation, the carting operations, and the sawing in Seegur Forest were inspected; the plantations at Benni, and carting operations in Mudumallai Forest. Again, at the end of the month the sandalwood plantation in Seegur Forest was inspected.

In May, the sandalwood plantation in Seegur was again inspected, and the boundary of Ballyrungum's with the Collector of Coimbatore.

In June, the carting operations at Tippicadoo; the sandalwood plantation and sawing operations in the Seegur Forest; the plantations and forest work at Mudumallai.

In July, the floating operations at Neringapett, Bhowani, and Erode.

In August, the forest operations at Mudumallai and the plantations at Benni; the sawing and sandal planting operations in Seegur.

In September, the work in Mudumallai and Seegur Forests was inspected.

In October, the sandal plantations at Tullimulli and Vyloor in Collegal and the adjacent forests; the carting at Tippicadoo.

In November, the forest work at Mudumallai; the sandalwood planting in Seegur; and the floating operations at Neringapett, Bhowani, and Erode.

In December, the timber yard at Mysore; the forest operations in Mudumallai; the sandal planting in Seegur, and sawing work was inspected.

In January, the sandalwood plantations and sawing work in Seegur Forest.

In February, the carting and other forest operations at Mudumallai, and the floating operations at Neringapett, Bhowani, and Erode.

In March, the work in Mudumallai Forest; the sandal plantations of Tullamallai in Sathiamangalum; those of Vyloor in Collegal, and the forests generally.

SECTION II.

2. *A.* RESERVES—*Reserved Forest and Contemplated Operations.*—This forest belonging to Government contains an area of 500 square miles, and the valuable trees are hereunder mentioned:—

Trees.	Estimated No.
Sandalwood (*Santalum album*)	Not ascertainable.
Teak (*Tectona grandis*)	
Vengay (*Pterocarpus marsupium*)	
Blackwood (*Dalbergia latifolia*)	
Achawood (*Hardwickia binata*)	
Sal (*Vatica laccifera*)	
Mutti (*Terminalia tomentosa*)	
Satinwood (*Chloroxylon Swietenia*	

3. OPERATIONS—*Felling.*—2,779 maunds of sandalwood, and 1,581 of sandalwood roots, have been felled and dug respectively in the Tullamalai jungles, and a very small quantity of 13¾ cubic feet of Acha and Blackwood has been felled in the Gazulty and Hassanore jungles at a cost of Rupees 1,712-4-2.

4. *Carting.*—The abovesaid quantity of sandalwood and roots and other timber, viz.,* 406¼ cubic feet, have been brought to the depôts at Tullamalai and Sathiamangalum, respectively, a distance of 30 miles to the former and 20 miles to the latter, from the jungles at a cost of Rupees 1,035-14-3.

* Blackwood	78¾
Vengay	159
Junglewood	168¾
Total...	406¼

5. *Preparing Sandalwood and Roots.*—The abovesaid quantity of sandalwood and roots were prepared by carpenters, *i. e.*, cleaning the sapwood and stacked in the depôt at Tullamalai at a cost of Rupees 323-1-1.

6. The receipts and disbursements of the current year compared with those of the previous year are as per margin.

	1872-73.			1873-74.		
	RS.	A.	P.	RS.	A.	P.
Receipts	14,896	1	6	10,124	8	0
Disbursements	3,605	3	8	3,366	14	3

7. The reason of the current year's receipts being considerably less than the previous year's is attributable to the fact that first the budget estimate of the former, under Item No. 1, is less by 2,000 Rupees than that of the latter; and, secondly, some 1,300 maunds of sandalwood remained in stock at the commencement of the previous year, and some 1,300 cubic feet of teakwood belonging to the depôt of the Seegur Forest (then amalgamated with this forest, and separated from the beginning of the current year) were sold, and the value about 5,000 Rupees, the difference, credited in that year's account.

8. The disbursement of the past year being greater than those of the current year by Rupees 238-5-8 is owing to about 1,000 cubic feet of teak, etc., wood having been felled in that year.

9. Had it not been for the curtailment of the budget grant in the current year's estimate the disbursement would have been considerably more, consequent on about 1,460 maunds of sandalwood having been prepared in excess of last year's. The payment of charges for this excess were kept in abeyance till the close of the year for want of funds.

10. *Contemplated Operations.*—To fell 1,200 maunds of sandalwood and 500 cubic feet of Teak and Vengay, to supply the market depôt at Sathiamangalum.

11. *B. Fuel reserves and contemplated operations.*—None.

12. *C. Plantation and contemplated operations.*—None.

(1.) *Fuel plantation.*—None.

(2.) *Timber plantation.*—During the year under report 6,300 sandalwood plants and 2,600 Anatti plants were planted at Tullamalai; the number of the former planted up to last year was 55,500, and the total up to 31st March 1874 is 61,800. Ten acres have been ploughed and pitted for planting. The trees are progressing satisfactorily. The cost during the year has been Rs. 1,633-1-9, including the pruning and weeding of the old plantation up to last year Rs. 9,163-12-10, total up to the end of March 1874 is Rs. 10,796-14-7, or 2¾ Annas a plant. Ten acres have been cleared and nurseries formed for this year's planting.

13. The receipts and disbursements of this and past years are indicated in the margin, the former needs no explanation as there is no income from the plantation yet, and the latter in 1872-73 being considerably greater than in 1873-74 is owing to 8,000 sandalwood plants having been put out in excess in that year, or more than double the quantity planted in 1873-74.

	1872-73. Rs. A. P.	1873-74. Rs. A. P.
Receipts	... ...	... ...
Disbursements	4,238 6 5	1,633 1 9

14. The subjoined is the statement of cost, etc., of the plantation :—

Name of the Plantation.	Year in which the Plantation was formed.	Area in Acres.	Description of the Trees.	Number of Trees.	Cost. During the year.	Cost. Up to the year.	Receipts. During the year.	Receipts. Up to the year.
					Rs. A. P.	Rs. A. P.	Rs.	Rs.
Tullamalai ...	1863	65	Sandalwood.	61,800	1,633 1 9	10,796 14 7	.....	.....
Do.	1873		Anatti.	2,600				

15. (3.) *Experimental Plantation.*—The experimental sandalwood plantation promises well.

16. *Contemplated Operations.*—To clear ten acres of land, and to plant 8,000 Sandalwood and Anatti plants this year.

SECTION III.

17. *Forest worked under the License and Voucher system.*—Statement E shows the collections and quantity removed of each description of wood. The receipts and disbursements of this and past years are shown in the margin, exclusive of the sum realized on contract of firewood, bamboos, valum bark, and charcoal, which is exhibited under "Permit fees and Rent of Jungles

	1872-73. Rs. A. P.	1873-74. Rs. A. P.
Receipts	1,032 10 0	3,985 8 0
Disbursements	... ...	... ...

and privileges." As there were considerable demands in the current year for teak, sal, and other junglewood used as timber, the receipts have exceeded the last year's by Rupees 2,952-14-0, which is an unusual increase over those of the previous years. It is, however, believed that people in this range would require an ample supply of timber of different descriptions for their building and other purposes always.

18. There is apparently an enormous loss to Government and damage to the jungles under the License and Voucher system. If this could be suppressed altogether, and departmental working introduced instead, a sufficient quantity of all descriptions of wood available from the range for some years' consumption must before-hand be felled and brought to the market depôt at Sathiamangalum, when the revenue from this source will no doubt be abundant, and this system can, in my opinion, be carried on cheaply and economically. The average rate per cubic foot for felling, supervision, carriage hire, *etc.*, will amount to 8 Annas; while the selling price will be 12 Annas a cubic foot, or a profit of 4 Annas on 20,000 cubic feet we can always anticipate to meet demands for, will be obtained, or in other words 5,000 Rupees as net profit.

SECTION IV.

19. *Yield of Forest.*—The subjoined statement shows the total yield of timber, *i.e.*, the quantity of timber, *etc.*, sold and removed free of payment:—

Yield of Forest.

Timber.					Firewood for Railway and other purposes.		Bamboos.		Palmyrah.	Charcoal.	Forest produce.	Remarks.
Departmentally.		On License.		Free.	On License Department.	Free.	On License.	Free.				
C. FT.	MDS.	C. FT.	MDS.	C. FT.	HEAD-LOADS.	TONS.	CART-LOADS.	CART-LOADS.	NO.	TONS.	BANDY-LOADS.	
13¾	4,360	25,062½ =1,269 bandy-loads at 20 cubic feet each.	...	200 =10 Bandy-loads at 20 cubic feet.	73	*...	.....	*.....	.....	.....	13	

* The Tasildar has not furnished the statement called for.

N. B.—The firewood, bamboos, valum bark, and charcoal have been given on contract, and so the quantity removed is not ascertainable. The contract amount realized during the year is Rupees 1,745-10-8.

SECTION V.

20. *Financial Results.*—The financial results of the forest is satisfactory. The expenditure is Rupees 6,927-6-9, and the receipts Rupees 15,891-4-8, and the balance in favor of Government is Rupees 8,963-13-11, which, added together with Rupees 1,633-1-9 spent on plantations, will make a clear profit of Rupees 10,596-15-8; but as the sandalwood is being gradually worked out it is necessary to maintain a plantation for the future supply—*Vide* paragraphs 7, 8, 13, and 17.*

* For comparison of Financial results.

SECTION VI.

21. General Remarks.—*Working Charges, Advance.*—Rupees 5,000, sanctioned under "A. Conservancy and working" for the year under report, have been drawn and fully accounted for by submission of bills agreeably to the instructions conveyed in paragraph 3 of the Proceedings of the Board of Revenue, No. 1,538, dated 9th August 1872—*Vide* Statement submitted on the 24th April 1874 in conformity with the order of the Board (Proceedings, or Official Memorandum, No. $\frac{2}{2}\frac{2}{2}\frac{2}{2}$, dated 20th February 1874, paragraph 1.)

22. *Permanent Advance Fund.*—Agreeably to the instructions of the Accountant-General, conveyed in his Circular, No. 32, dated 5th December 1873, a report has been submitted to the Accountant-General through the Collector on the 1st April 1874, to the effect that the Permanent Advance Fund of Rupees 300 placed at my disposal (Proceedings of the Board, No. $\frac{7}{1}\frac{}{9}\frac{}{5}$, dated 12th February 1873) is due from and to be accounted for by me.

23. *Conduct and Health of Establishment.*—Cundasawmy Pillay, the Forest Overseer, has performed his duties in a satisfactory manner. The Sub-Overseer, Pichicootty Pillay, has been diligent in the discharge of his duties. The health of the Forest Peons has suffered much from fever.

24. *Criminal Prosecutions.*—These are a failure, as there is no Forest law. A Statement of Forest offences tried and disposed of by the Magistrate during the year is subjoined :—

Register of Forest offences tried before the Sub-Magistrate in the Sathiamangalum Range during the official year 1873-74.

Places where and date when offences were committed.		Offences.	Number of persons charged.	By whom tried.	Result and punishment if convicted.	Remarks, if any, recorded by trying officer as to conduct of department.	Informer.
Kanakumpolliem.	4th March 1874.	Stealing timber.	One.	2nd Class Magistrate.	20 Rupees fined, or 20 days' imprisonment.	.....	Cunnoosawmy Chetty.

25. *Free Pass.*—Free passes do not work well. A statement called for for the year has not been furnished by the Tahsildar of the Sathiamangalum Taluq.

Ootacamund,
30th May 1874.

(Signed) H. R. MORGAN, Colonel,
Deputy Conservator of Forests.

No. 227.

COLLEGAL FOREST.

Annual Administration Report of the Collegal Forest for the official year 1873-74.

The subject is treated as usual under the following Sections :—

Section I.—Inspection Tours of the Deputy-Conservator.

Section II.—Reserves.

A, Reserved Forest and contemplated Operations.

B, Fuel-reserves and contemplated Operations.

C, Plantation and contemplated Operations.

SECTION III.—License and Voucher system.
SECTION IV.—Yield of Forests.
SECTION V.—Financial Results.
SECTION VI.—General Remarks.

SECTION I.

1. *Inspection Tours of the Deputy-Conservator.*—*Vide* Section I. under Sattiamangalum forests.

SECTION II.

RESERVES.

2. *A, Reserved Forest and contemplated Operations.*—This forest, belonging to Government, contains an area of 500 square miles, and the valuable trees are hereunder-mentioned:—

Trees	Estimated No.
Teak (*Tectona grandis*)	5,000
Blackwood (*Dalbergia latifolia*)	3,000
Jungle wood	(*a*)
Satinwood (*Chloroxylon Swietenia*)	(*a*)
Vengay wood (*Pterocarpus marsupium*)..	(*a*)
Sandalwood (*Santalum album*)	1,00,000
Sal (*Vatica laccifera*)	(*a*)

(*a*) Not ascertainable.

3. OPERATIONS, *Felling.*—3,636 maunds of Sandalwood and 522 of Sandalwood roots were felled and dug, respectively, on the Bellirungum and Mudaisverum Hills and in the Bylore jungle, and no other timber was felled in consequence of there being a sufficient stock on hand out of last year's, and of there being no demand for the timber by the public, except by the Department Public Works which has taken a quantity in the year under report from our depôts to the extent of Rupees 528-14-6, exclusive of carriage hire. The cost of the felling of the above quantity is Rupees 1,715-8-6*.

* Includes Rs. 213 spent out of old advance unadjusted up to 31st March 1873.

4. *Sawing Sandalwood.*—11,230 Sandalwood trees were sawn for being prepared into billets, at a cost of Rupees 35-4-9.

5. *Sawing Timber.*—367¼ cubic feet of timber were sawn into rafters, *etc.*, at Collegal, Bylore, and Busvanathum jungles, at a cost of Rupees 110-14-0† for supply to Department Public Works.

† Includes Rs. 63-8-0 spent out of old advances unadjusted on 31st March 1873.

6. *Carting.*—The above-said quantity of Sandalwood and roots was brought to the main depôt at Collegal from Mudaisverum Hills and Bylore jungle, a distance of 55 and 30 miles from the former and the latter respectively, at a cost of Rupees 2,169-14-0,‡ and 204 cubic feet of sawn logs from the Bylore jungle to Nokanully and four carts of logs from Modully jungles to Collegal to be sawn were brought at a cost of Rupees 46§.

‡ Includes Rs. 282-10-0 spent out of old advance remained unadjusted on 31st March 1873, and 200 Rs. advanced to Sandalwood carriage contractor in 1873-74.

§ Includes Rs. 34 spent out of old advance unadjusted on 31st March 1873.

7. The elephant, the bullocks, and buffaloes, whose feed and keep amounts to Rs. 71-9-0, were employed in dragging timber clear of the plantation in the Bylore jungle, in carrying logs to be sawn for Department Public Works into reepers from the Modully jungle, in watering the plants, and in ploughing the land.

8. *Preparing Sandalwood and Roots.*—3,636 maunds of Sandalwood and 522 of roots were prepared, *i.e.*, cleaning the sapwood and stacked in the depôt at Collegal, at a cost of Rupees 269-10-0¶.

¶ Includes Rs. 28-2-0 spent out of advance remained to be adjusted on 31st March 1873.

	1872-73. RS. A. P.	1873-74. RS. A. P.
Receipts	17,148 8 0	15,528 14 6
Disbursements	5,993 9 6	4,124 8 9

9. The receipts and disbursements of the current year, compared with those of the previous year, are as per margin.

10. The reason of the receipts of the past year being greater than that of the current year by Rupees 1,619-9-6 is owing to the old balance of Sandalwood in the depôt having been disposed of and the value credited in the accounts of that year; and the disbursement of the former being considerably larger than that of the latter by Rupees 1,869-0-9 is attributable to the fact that, first, a sum of Rupees 1,500 was transferred to the Bhowani forest from the budget grant of the year under report, as that sum was absolutely necessary to meet some urgent expenditure of the floating operations; secondly, that about 2,000 cubic feet of different descriptions of timber besides Sandalwood were felled and brought to the depôt in that year on, hired and Circar bullocks, the feed and keep of the latter alone amounting to Rupees 491-1-11 against Rupees 71-9-0 in the current year, while no felling of other timber was carried on except carting on, hired bullocks a small quantity to the depôt in this year; and, thirdly, that Rupees 889-14-5, which remained unadjusted on 31st March 1873, and Rupees 16-4-1, ordered by Government to be written off to "Profit and Loss," were charged off in the accounts of that year; but the former has been duly recovered in work and accounted for by submission of bills in the current year.

11. *Contemplated Operations.*—To fell 3,000 maunds of Sandalwood and dig 1,000 of roots and 500 cubic feet of other timber to supply the market at Collegal, *etc.*

12. B, *Fuel-reserves and contemplated Operations.*—None.

13. C, *Plantation and contemplated Operations*—

(1.) *Fuel Plantation.*—None.

(2.) *Timber Plantation.*—In the past year, 9 acres were planted with 9,000 Sandalwood plants; this brings the total planted to 56 acres, or 38,000 plants planted up to the year. In addition to this 10 acres have been cleared and got ready for this year's planting. The cost of this year is Rupees 2,975-7-3 including Rupees 227-11-0 spent in building an anicut and cutting a channel; up to last year Rupees 8,305-2-4; total up to 31st March 1874 is Rupees 11,509-0-6. I have already explained that the cost of watering the plants will be much reduced by cutting a water-channel up to the plantation. In the year under report 95$\frac{3}{4}$ cubic yards of channel work have been cut.

	1872-73. RS. A. P.	1873-74. RS. A. P.
Receipts	....	....
Disbursements	4,694 7 6	2,975 7 3

Includes Rs. 228-6-11 spent for cutting a channel and charged to "X, Communication, *etc.*"

14. The receipts and disbursements of the current year, compared with those of the past year, are as per margin.

15. The disbursement of the past year being greater than that of the current year is due to the fact that 14,000 plants were planted in that year in excess, or nearly double the number planted in 1873-74.

16. The subjoined is the statement of cost, *etc.*, of the plantation.

Name of the Plantation.	Year in which the Plantation was formed.	Area in Acres.	Description of the Trees.	Number of Trees.	Cost		Receipts		Remarks.
					During the year.	Up to the year.	During the year.	Up to the year.	
					RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	
Bylore..	1870 ...	56	Sandalwood.	38,000	(a) 2,975 7 3	(b) 11,509 0 6	... ...	... ...	(a.) Includes Rupees 227-11-0 spent for cutting a channel out of "X., Communications." (b.) Includes Rupees 228-6-11 spent for cutting a channel out of "X., Communications," 1872-73.

(3.) *Experimental Plantation.*—None.

17. *Contemplated Operations.*—To plant 10 acres and to clear as many acres. To build the anicut and cut a channel.

18. *Forest worked under the Voucher and License System.*—Statement E shows the collections and quantity removed of each description of wood. The receipts and disbursements of the current year, compared with those of the past year, are as per margin, exclusive of the sum realised on contract of fire-wood, bamboos, Valum bark, and charcoal, which is exhibited under "Permit fees and rent of jungles and privileges." The surplus revenue over the past year's from this source is only Rupees 148, which is owing to about eighty bandy-loads of jungle-wood used as timber having been removed in excess in the current year.

	1872-73. Rs. A. P.	1873-74. Rs. A. P.
Receipts	560 0 0	708 0 0
Disbursements	....	....

19. The license and voucher system at present works best, departmental felling meets with no encouragement from merchants; in fact, they do not buy.

SECTION IV.

20. *Yield of Forest.*—The subjoined statement shows the total yield of timber, *i.e.*, the quantity of timber, *etc.*, sold and removed free of payment.

Yield of Forest.

Timber.					Fire-wood for Railway and other purposes.		Bamboos.					
Departmentally.		On License.		Free.	On License and Departmentally.	Free.	On License.	Free.	Palmirah	Charcoal.	Forest-Produce.	Remarks.
C. FT.	MDS.	C. FEET.	MDS.	C. FEET.	C. LDS.	C. LDS.		C. LDS.				
...	*3,636½	4,400 = 220 carts at 20 c. ft. each.	...	1,120 = 56 carts at 20 c. ft. each.	...	180½	...	199½	...	...	...	* Exclusive of 522 maunds of Sandalwood roots removed and sold.

N.B.—The fire-wood, bamboos, Valum bark, and charcoal, have been given on contract, and so the quantity removed is not ascertainable. The contract amount realised during the year is Rupees 1,321-10-8.

SECTION V.

21. *Financial Results.*—The financial results of this forest is satisfactory. The expenditure is Rupees 9,484-3-8, the receipts Rupees 17,581-7-2, and the balance in favor of Government is Rupees 8,097-3-6 which added together with Rupees 2,975-7-3 spent on plantations will make a clear profit of Rupees 11,072-10-9. It is necessary to maintain a plantation, the Sandalwood from the natural forest being gradually worked out.

22. The receipts and disbursements of the current year, compared with those of the past year, are as per margin, and for explanation of the difference between the results of those years *vide* paragraphs 10, 15, and 18 of this report.

	1872-73. Rs. A. P.	1873-74. Rs. A. P.
Receipts	18,360 10 0	17,581 7 2
Disbursements	13,120 1 0	9,484 3 8

SECTION VI.

23. General Remarks.—*Working Charges, Advance.*—Rupees 7,100 sanctioned for the working of the forest with during the year under report have been drawn and accounted for by

submission of bills, except Rupees 294-11-0 which remain against the Sandalwood carriage contractor and plantation coolies (*vide* remarks in Statement submitted on 24th April 1874, agreeably to the instructions of the Board conveyed in paragraph 3 of their Proceedings, No. 1,538, dated 9th August 1872).

24. *Permanent Advance Fund.*—A report called for by the Accountant-General in his Circular No. 32, dated 5th December 1873, to the effect that the Advance Fund of Rupees 800 is due from and to be accounted for by me, had been submitted on the 1st April 1874 to him through the Collector.

25. *Conduct and Health of Subordinates.*—The health of the establishment has been much as usual, fever being very prevalent. The exchange of Overseer Taylor with Appavoo Moodelly was unfortunate as the plantations under the former have not made that progress which they would have made under the experienced hands of the latter.

26. *Criminal Prosecution.*—A statement of forest-offences tried by the magisterial officer is subjoined:—

Register of Forest-offences commencing from April 1873 *to March* 1874.

Month.	No.	Place where and when Offence committed.	Offences.	Person charged.	By whom tried.	Result and Punishment if convicted.	Remarks, if any, by the trying Officers to the conduct of the Department.	Informer.	Remarks.
1873., Dec.	1.	Linga Nellore, 24th December 1873.	Felling timbers without license.	Chennay Gowda. Maday Gowda. Yeeray Gowda. Chicka Gowda. Beelagy Sanidar.	By the Sheristadar of Collegal.	Pending orders of the Collectors.	.....	A. K. D. Thurmaboosay and Cawder Saib.	Found in their houses and backyard.

27. *Free Passes.*—These appear to work indifferently, and the quantity taken is shown in the statement under paragraph 20 of this report.

28. *Improvements.*—1,230 feet long and 5 feet broad of fire-path were cleared around the plantation, and 960 running yards of channel have been made for water to be brought on.

OOTACAMUND,
30*th May* 1874.

(Signed) H. R. MORGAN, Colonel,
Deputy-Conservator of Forests.

BHOWANY FOREST.

Annual Administration Report of the Bhowany Forest for the official-year 1873-74.

The subject is treated as usual under the following Sections:—

SECTION I.—Inspection tours of the Deputy Conservator.
SECTION II.—Reserves.
A.—Reserved Forest and contemplated operations.
B.—Fuel Reserves and contemplated operations.
C.—Plantations and contemplated operations.
SECTION III.—License and Voucher system.
SECTION IV.—Yield of Forests.
SECTION V.—Financial Results.
SECTION VI.—General Remarks.

SECTION I.

1. *Inspection-tours of the Deputy Conservator.*—*Vide* under Section I. of the Sattiamangalum Forest.

SECTION II.

2. RESERVES A—*Reserved Forest and Contemplated Operations.*—This Forest contains an area of 400 square miles, and the valuable timber trees are hereunder mentioned :—

TREES.	ESTIMATED No.
Sandalwood (Santalum Alvum)	1,10,000
Teak (Tectona grandis)	5,000
Vengay (Pterocarpus Marsupium)	10,000
Achawood (Hardwickia binata)	20,000

3. *Operations—Felling Sandalwood.*—1,355 maunds of sandalwood and 1,355 of roots were felled and dug respectively on the Burgoor hills on contract at a cost of Rupees 713-14-6.

4. *Fuel.*—660 tons at Sambully, Nagaputty and Nattamungalum, 420 tons at Neringapett, and 200 tons in the jungles, of Railway fuel, were felled and stacked on contract work at a cost of Rupees 2,319-4-8.

5. *Sawing Fuel.*—1,070 tons of Railway fuel were sawn into billets of 18″ × 9″ each at Erode, and 162 tons at Coolanully Depôts, for delivery to the Madras and the Great Southern of India Railways respectively on contract work at a cost of Rupees 754-7-6.

6. *Carting Sandalwood.*—3,434 maunds of Sandalwood trees and roots were brought on hired bullocks from the Burgoor hills to the main depôt at Bhowany, a distance of 35 miles at a cost of Rupees 1,373-7-4.

7. *Floating Fuel.*—1,100 tons of fuel to the Erode Depôt and 180 tons to the Coolanully Depôt were brought from the felling depôts above mentioned on carts as far as Neringapett and Cawverepoorum and on boats from the latter places to the sawing depôts. The cost of the floating, inclusive of the supervision by maistries, purchase of materials for building boats, repairing charges thereof, and charges for conveyance of boats back to Erode, is Rupees 5,116-5-8, which is, I should remark, enormous, owing to the mismanagement of the work by the Floating Overseer, and want of supervision by Mr. Overseer Grant who had, however, to attend to the Sandalwood operations.

8. *Repairing Sandalwood.*—2,700 maunds of Sandalwood and roots were prepared by the carpenters and stacked at a cost of Rupees 214-1-10.

9. *Roads.*—A road for carts to bring fuel to the banks of the river from Chinna Covil to Nadoo Covil a distance of six miles, a branch road from the Neringapett public road leading to the bungalow, and another road at Cawverepoorum, have been constructed.

10. The receipts and disbursements of the current year compared with those of the previous year are as per margin. The receipts of 1873-74 being exceeded by those of the last year by Rupees 8,378-5-0 notwithstanding fuel to the extent of a nearly double the quantity of last year was supplied to the Railways, is first owing to a less quantity of sandalwood having been felled and sold in that year consequent on the curtailment of 1,000 Rupees from the Original Budget grant; and secondly some 1,400 maunds of old balance of sandalwood and some 1,000 maunds more than that year's sale were sold and value credited in the previous year. The difference in the receipts would have appeared somewhat less, had the Madras Railway paid within the year Rupees 1,476-0-0 for 246 tons delivered in March 1874.

	1872-73.			1873-74.		
	RS.	A.	P.	RS.	A.	P.
Receipts	23,487	8	0	15,109	8	0
Disbursements	17,024	13	4	15,166	6	0

11. The disbursement of the previous year being also greater than that of the current year by Rupees 1,858-7-0, is due to the fact that eight pairs of bullocks and six carts were brought and five carts were made in that year for conveying boats from Erode to Neringapett and *vice versâ* to prevent bandy contractors from demanding an unreasonable hire for their carts when their services are absolutely required, and that a larger quantity of sandalwood than the current year's was prepared.

12. *Contemplated Operations.*—To fell 2,000 maunds of sandalwood, 400 cubic feet of teak, etc., wood and bring it to the depôt, and 2,000 tons of fuel for the Railways.

13. To improve the raft channel in the Cauvery river round the Neringapett anicut at an expense of Rupees 7,750.

14. *B. Fuel Reserves and Contemplated Operations.*—None.

15. *C. Plantation and Contemplated Operations.*

(1) *Fuel Plantation.*—None.

(2) *Timber Plantation.*—None.

(3) *Experimental Plantation.*—The experimental fuel plantation progresses favorably and Rupees 233-10-0 have been spent in the year under report. To plant the trees when water is scarce in the river during the hot season, a large well has been dug with a stone wall of 42½ yards × 3 yards round it.

	1872-73.	1873-74.
	RS. A. P.	RS. A. P.
Receipts	....	....
Disbursements	94 1 0	233 10 0

16. The receipts and disbursements of the current year compared with those of the previous year are indicated in the margin.

17. The expenditure of the current year being greater than the previous year's by Rupees 139-9-0 is attributable to the construction of a well with a stone wall round it as above mentioned.

18. The subjoined is the Statement of cost, *etc.*, of the plantation.

Name of the Plantation.	Year in which the Plantation was formed.	Area in acres.	Description of the trees.	No. of trees.	Cost.		Receipts.	
					During the year.	Up to the year.	During. the year.	Up to the year.
					RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Bhowani.	1871.	64 Sq. yds.	Firewood.	....	233 10 0	608 5 10	....	....

19. *Contemplated Operations.*—To clear 2 acres of land and to plant experimentally 2,000 fuel trees.

Section III.

20. *Forests worked under License and Voucher System.*—The Statement E. represents the collections and the quantity removed of each description of timber from this range.

21. The receipts and disbursements of the current and past year are exhibited in the margin, exclusive of the sums realized on contract of firewood, valum bark, and charcoal, which appears under "Permit fees and Rent of Jungles and privileges."

	1872-73.	1873-74.
	RS. A. P.	RS. A. P.
Receipts	2,241 0 0	3,286 15 0
Disbursements	....	....

22. The reason of the receipts being greater by Rupees 1,045-15-0 than last year's is owing to a few cart-loads of teak and junglewood removed in excess and to the fact that the collection of seignorage on firewood, bamboos, valum bark, and charcoal leased and the kist-money shown under "Permit fees,, *etc.*, up to previous year, was temporarily made by departmental agency during the ten months of the year under report, agreeably to the orders of the Board, conveyed in their Proceedings, No. 22-770, dated 10th May 1873, and the amount realized has been therefore included in the amount exhibited under heading No. II.

23. The collection of seignorage on firewood, etc., has, with the permission of the Collector, been leased for a year for 900 Rupees, commencing from February last, and the instalments due for the two months of the year have been paid and carried to heading No. IV. "Permit fees, etc.," *vide* Statement A.

24. My reasons assigned in paragraph 18 of the Sathiamangalam Forest for suppression of the Voucher and License system, and introduction of the departmental working which can be carried on cheaply and economically will equally apply to this range.

SECTION IV.

25. *Yield of Forest.*—The subjoined Statement shows the total yield of timber, *i.e.*, the quantity of timber, etc. sold and removed free of charges.

Yield of Forest.

TIMBER.					FIREWOOD FOR RAILWAY AND OTHER PURPOSES.		BAMBOOS.		Palmirah.	Charcool.	Forest Produce.
Departmentally.		On License.		Free.	On License and Departmentally.	Free.	On License.	Free.			
C. ft.	Maunds,	C. ft.	Tons.	C. ft.	Tons.	Tons.	C. load.	C. load.			Maunds.
120	2,710.	14,260.	„	3,960.	1,413½.	6.	711. 8,256. Head-loads.	69.			120.

N.B.—The firewood, bamboos, valum bark, and charcoal have been given on contract from February 1874, and so the quantity removed in the last two months of the year is not ascertainable. The contract amount realized for this period is Rupees 150.

SECTION V.

26. *Financial Results.*—It is a matter of regret to observe that the financial result of this forest is not satisfactory this year, the gross expenditure of Rupees 18,825-14-3 having exceeded the receipts of Rupees 18,609-1-0 by Rupees 216-13-3 which is a balance against the forest, but if the amount spent on the plantation, viz., Rupees 233-10-0 is treated out of account there would be left a small sum of Rupees 16-12-9 in favor of Government. A fair result over the amount spent in the year would have been represented, had it not been for the culpable negligence of the floating Overseer in the execution of the works entrusted to him, had the Madras Railway paid Rupees 1,476-0-0 within 31st March 1874 as repeatedly requested for the 246 tons of fuel delivered to it in that month, and had not Rupees 1,922-1-0 been paid in the year for the work done in the previous year, viz., making 1,400 yards holes of rocks in the Cauvery river, and removing them from Bhowany to Erode.

27. Only 590½ tons of fuel were supplied to the Great Southern of India Railway during the year against 2,500 indented for, and it is evident that the value of undelivered quantity at 6 Rupees per ton would have brought the receipts to little more than 30,000 Rupees anticipated by me, and mentioned in my letter No. $\frac{201}{494}$, dated 29th September 1873, had funds been adequately available, and the floating Overseer simultaneously used economy in the expenditure of the operations and vigorously discharged his duties with implicit obedience to my orders.

28. The financial results of the current year compared with that of the previous year are fully explained in paragraphs 10 and 11 and 17 of this report.

SECTION VI.

29. *General Remarks.*—Working charges advance Rupees 15,400 including Rupees 1,500 transferred from the Collegal forest, sanctioned for the Sandalwood and Railway fuel operations

for the year under report have been drawn, and fully accounted for by submission of bills agreeably to the instructions of the Board.—*Vide* Statement submitted on the 24th April 1874 in conformity with the orders of the Board.—*Vide* their Official Memorandum No. $\frac{2}{1}\frac{2}{2}\frac{2}{3}$, dated 20th February 1874, paragraph 1.

30. *Permanent Advance Fund.*—Agreeably to the instructions of the Accountant-General, conveyed in his Circular No. 32, dated 5th December 1873, a report has been submitted on the 1st April 1874, to that functionary through the Collector to the effect that the Permanent Advance Fund of Rupees 2,000 is due from and to be accounted for by me.

31. *Conduct and health of Establishment.*—The health of the Establishment has been pretty good. The floating Overseer has been dismissed for gross neglect of his work. Overseer Grant has not exercised that supervision over the floating Overseer which was enjoined upon him.

32. *Criminal Prosecution.*—A Statement of offences committed against the Forest Rules and disposed of during the year is appended.

33. *Free Pass.*—These are abused here as elsewhere, ryots helping themselves to reserved wood, in fact free passes are not properly controlled, and much damage is done to the jungles.

OOTACAMUND,
3rd June 1874.

(Signed) H. R. MORGAN, Colonel,
Deputy Conservator of Forests.

COMMISSIONER'S OFFICE, OOTACAMUND,
24th June 1874.

No. 53.

From

J. R. COCKERELL, ESQ.,
Commissioner of Nilgiris,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue.

SIR,—I have the honor to submit the Annual Report of Lieutenant-Colonel Morgan, Deputy Conservator of Forests, for 1873-74 on the Mudumullai and Seegur forests.

2. I visited these forests in company with Colonel Morgan at the beginning of the year. The teak plantation at Benni I found in a very luxuriant condition of growth. The plantation at Mudumullai was growing less well. The trees were spindly, and the bark more or less covered with Lichen, a symptom of want of vigour. Colonel Morgan does not propose to add to this plantation.

3. The Benni plantation is on rich black soil, and Colonel Morgan will add ten acres to it in the coming year.

4. The sandalwood plantation appeared to be thriving.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) J. R. COCKERELL,
Commissioner.

MUDUMALLAI FOREST.

Annual Administration Report of the Mudumallai Forest for the official year 1873-74.

The subject is treated as usual under the following Sections :—

SECTION I.—Inspection-tours of the Deputy Conservator.
SECTION II.—Reserves.
A.—Reserved forests and Contemplated operations.
B.—Fuel-reserves and Contemplated operations.
C.—Plantations and Contemplated operations.
SECTION III.—License and Voucher forests.
SECTION IV.—Yield of forests.
SECTION V.—Financial results.
SECTION VI.—General remarks.

SECTION I.

2. *Inspection-tours of the Deputy Conservator.*—In April the sandalwood plantation, the carting operations, and the sawing in Seegur Forest were inspected. The plantations at Benni, and carting operations in Mudumallai Forest. Again, at the end of the month, the Sandalwood plantation in Seegur Forest was inspected.

3. In May the sandalwood plantation in Seegur was again inspected, and the boundary of the Ballyrungum's with the Collector of Coimbatore.

4. In June the carting operation at Tippicadoo ; the sandalwood plantation, and sawing operations in the Seegur Forest. The plantations and forest work at Mudumallai.

5. In July the floating operations at Neringapett, Bhowani, and Erode.

6. In August the forest operations at Mudumallai, and the plantations at Benni. The sawing and sandal planting operations in Seegur.

7. In September the work in Mudumallai and Seegur Forests was inspected.

8. In October the sandal plantations at Tullimulli and Vyloor in Collegall, and the adjacent forests. The carting at Tippicadoo.

9. In November the forest work at Mudumallai ; the sandalwood planting in Seegur ; the floating operations at Neringapett, Bhowani, and Erode.

10. In December the timber yard at Mysore, the forest operations in Mudumallai, the sandal planting in Seegur, and sawing work was inspected.

11. In January the sandalwood plantations and sawing work in Seegur Forest.

12. In February the carting and other Forest operations at Mudumallai ; the floating operations at Neringapett, Bhowani, and Erode.

13. In March the work in Mudumallai Forest ; the sandal plantations of Tullimalli in Sathiamangalum, those of Vyloor in Collegall, and the forests generally.

SECTION II.

14. *A. Reserved Forest—Operations.*—This forest leased for ninety-nine years and a portion of Wynaad worked in connection with it contain about 300 square miles. It contains valuable trees noted hereunder :—

Trees.	*Estimated No.*
Teak (Tectona grandis)	150,000
Vengay (Pterocarpus marsupium)	40,000
Blackwood (Dalbergia latifolia)	5,000
Ven Teak (Lagerstroemia microcarpa)	1,000
Kurry Murdu (Terminalia tomentosa)	1,000

15. *Felling Timber.*—Agreeably to the advice of the Board felling is limited till $\frac{2}{3}$rds of the stock are disposed of. 4,381$\frac{3}{4}$ cubic feet of teak have been felled and squared by Coorumbers in Adirkallummen Goody, a distance of 14 miles from the karkana, at a cost of Rs. 410-12-6, or 1$\frac{1}{2}$ Annas per cubic foot.

16. *Sawing.*—It is very difficult to obtain the labor of sawyers. 4,342$\frac{1}{4}$ square feet of teak have been sawn by sawyers into cart loads, at a cost of Rupees 215-15-0, or 20 square feet per Rupee.

17. *Dragging Timber.*—12,591$\frac{1}{4}$ cubic feet of teak have been dragged by elephants from the forests to the depôt at a cost of Rupees 1,103-5-2, being the amount of their feed and keep, *96 Rupees supervision, besides some 150 logs of teak containing 5,238$\frac{1}{2}$cubic feet which, at contract rate is equivalent to 200 Rupees, were set up for sawyers, and felling cleared of trunks of trees.

18. *Carting Timber.*—In the year ten carts only have been employed in carting timber from the forest to the karkana and Tippicadoo Depôts. 16,428 cubic feet of teak logs were carted to the above said depôts, and 8,456$\frac{1}{2}$ cubic feet of the cracked and worst logs from the latter depôt to the Northern Hay Saw-mill for sawing, the whole at an expense of Rupees 2,218-9-10, being the amount of feed and keep of the cattle. I may remark that a good deal of carting in the forest was from the very farthest depôts this year too, and contractors would probably have charged 3 Annas a cubic foot instead of 2 Annas, so that our carts have worked cheaply in addition to the little profit.

19. *Roads.*—The main line of road with feeders is in a good state of repair though wild elephants are still troublesome, breaking bridges and trampling the roads into a muddy quagmire.

20. *Building Office-rooms, etc.*—A building consisting of two rooms for the accommodation of office clerks, and a timber shed for storing in sawn timber such as planks, rafters, etc., with a wooden roof, has been erected on the premises of the present wood-yard at Ootacamund at an expense of Rupees 603-4-0, sanction having been duly accorded by the Board for the former. The receipts and disbursements of the current and past official year are as per margin.

	1872-73.			1873-74.		
	RS.	A.	P.	RS.	A.	P.
Receipts	45,943	8	6	41,802	1	3
Disbursements	42,758	13	2	37,024	2	2

21. The explanation of the variations in the receipts and disbursements of this and the past year, in paragraph 36 of this Report under "Financial Results," will almost apply to this.

22. *Contemplated operations.*—To fell 4,000 cubic feet of teak, and to cart 30,000 cubic feet to Mysore and 5,000 to Ooty—partly beams and partly sawn timber.

23. B.—*Fuel reserves and Contemplated operations.*—None.

24. C.—*Plantation—Operations*:—

(1).—*Fuel Plantation.*—None.

(2).—*Timber Plantation.*—This year 10,000 teak plants were planted at Benni and Mudumallai, the failure at the end of the year amounted to about 2 per cent.; the season was favorable for planting; the total number of plants is now 70,000. Ten acres have been cleared for this year's planting, and new nurseries formed; the cost of the plantations for the official year amounts to Rupees 2,404-13-7—total up to last year, Rupees 15,524-0-11. Total of the whole planting up to March 1874, Rupees 17,928-14-6, or about 4 Annas a plant all round up to date.

25. The receipts and disbursements of the year compared with that of the previous official year are as per margin. The cost of the past year being greater is attributable to 7,000 plants having been planted in excess of the current year's estimate.

	1872-73.			1873-74.		
	RS.	A.	P.	RS.	A.	P.
Receipts...	...	...	...	...	...	...
Disbursements	3,282	10	1	2,404	13	7

26. A Statement of cost, etc., of the plantation is subjoined :—

—	Name of the Plantation.	Year in which the Plantation was formed.	Area in Acres.	Description of Trees.	Number of Trees.	Cost. During the year.	Cost. Up to the year.	Receipts. During the year.	Receipts. Up to the year.
Acres. Trees. Years.						Rs. A. P.	Rs. A. P	Rs.	Rs.
Mudumallai ..... 20 20,000 1863.	Mudumallai and Benni.	1863 and 1869	75	Teak.	70,000	2,404 13 7	17,928 14 6	...	...
Benni..... 50 50,000 1869.									

(3.) *Experimental Plantation.*—None.

27. *Contemplated operations.*—To plant 10,000 trees.

Section III.

28. *Forests worked under the License and Voucher System.*—Only one tree called Mookey has been cut and removed on payment of a seigniorage of 1 rupee. The receipts and disbursements of the year compared with that of the previous year are as per margin.

	1872-73. Rs.	1873-74. Rs.
Receipts	100	1
Disbursements	...	...

29. The collection of seigniorage on firewood and bamboos in the Seegur and Mudumallai Forests was collectively leased for 100 Rs., which has been by a clerical error credited to the latter (the former was amalgamated with the Sathiamangalum Forest) in full instead of ⅓rd of it as usual in 1872-73, so the full amount realized under that head in 1873-74 has been credited to the former.

30. Moreover there will be no more revenue from this source, as the Collector of Malabar, under whose control the Mudumallai Forest was then temporarily placed, has, in his letter, No. 1,733, dated 11th July 1873, ruled that we have no right to lease the cutting of bamboos, nor has the Rajah of Nellumbore, the proprietor of the forest, any such right, but stated that we can cut and sell bamboos if the Rajah fails to remove them within three months from date of notice. This ruling prevented me from leasing the collection on bamboos as well as on firewood which alone no contractor is willing to tender for.

31. As the forest is departmentally worked, no other timber is allowed to be removed on payment of seigniorage, *i.e.*, on " License and Voucher."

32. And so no comparison can be made as regards the result of the license and voucher system with that of the departmental working in order to explain which of the two is cheapest and most economical.

Section IV.

33. *Yield of Forests.*—The subjoined Statement shows the total yield of the forest, *i.e.*, the total quantity sold and removed free of payment. In fact no timber was removed free of payment :—

Yield of Forest.

Timbers.					Firewood for Railway and other purposes.		Bamboos.		Palmirahs.	Charcoal.	Forest Produce.
Departmentally.		On License.		Free.	On License.	Free.	On License.	Free.			
Cubic feet.	Maunds.	C. Ft.	Maunds.	C. Ft.	Tons.	Tons.	Bandy.	Bandy.	Number	Tons.	Maunds.
4,381¼	...	10	...	...	...	...	...	...	...	...	...

Section V.

34. *Financial Results.*—This is more satisfactory than that of last year, the total expenditure of the forest amounts to Rs. 39,428-15-9, and the returns to Rs. 41,822-14-10, showing a profit of Rs. 2,393-15-1. The sales at auction in Mysore have enabled us to dispose of 22,330¾ cubic feet of teakwood, and this year we shall probably sell a little more than that quantity. The prices realized this year too are not high, but a rupee a cubic foot the usual average rate obtained causes no loss though we gain but small profits. If the amount of Rupees 2,404-13-7 spent (out of profit) on plantation be added to the surplus of Rupees 2,393-15-1, the whole profits of the year will amount to Rupees 4,798-12-8—a fair result for the year's work.

35. In addition the whole of my pay is charged to Mudumallai* Forest alone. If 10 per cent. on the gross expenditure of the other forests was charged for supervision, this would reduce the charge of supervision for Mudumallai from Rs. 13,570-14-0 to Rs. 9,767-14-0, or the profit of Mudumallai for the year would be Rs. 8,601-12-8, instead of as it appears at present.

* *Vide* paragraph 9 of G. O., No. 2,381, dated 24th December 1863.

36. It will be observed that the Revenue of the current year, compared with that of the past year, has fallen short by Rupees 4,220-9-8, which was owing to the market being dull in Ootacamund and Mysore, and to the fact that the Department of Public Works does not take such a quantity from the former depôt as was originally anticipated, and the disbursements of the current year being less than the previous year by Rs. 6,610-0-3, is attributable to the curtailment made by the Board in the working charges, original grant, to the extent of almost the similar amount.

	1872-73.			1873-74.		
	Rs.	A.	P.	Rs.	A.	P.
Receipts	46,043	8	6	41,822	14	10
Disbursements ...	46,039	0	0	39,428	15	9

Section VI.

37. General Remarks—*Stock of Timber.*—It is worthy of remark that the stock of timber in different depôts which at the beginning of the year stood at Rupees 1,05,694 has been reduced, agreeably to the advise of the Board, to Rupees 76,513, and will most probably be nothing at the end of next official year if the Department of Public Works take the quantity indented for.

38. *Working Charges, Advances.*—Rupees 22,300 inclusive of Rupees 550 transferred by the Board in their Proceedings, No. 71/1724, dated 13th March 1874, from the "Office contingencies" to "A. Conservancy and Working", in addition to the Budget grant originally sanctioned have been fully accounted* for by submission of bills in conformity with the orders of the Board—*vide* paragraph 3 of their Proceedings, No. 1,538, dated 9th August 1872.

*Vide Statement furnished on 24th April 1874.

39. *Permanent Advance Fund.*—A report called for by the Accountant General in his Circular No. 32, dated 5th December 1873, has been submitted to him through the Commissioner to the effect that the Permanent Advance Fund of Rupees 2,000 is due from and to be accounted for by me.

40. *Improvements.*—The improvements consist of a new road penetrating to a part of the forest hitherto unworked. The keeping up of the old plantations and the formation of new; these should be extended, and it is not a wise economy to stint them, as in the future our principal source of timber must be derived from plantations. In former reports I have pointed out that without plantations, the Forest Department is useless; to meet future demands, we must plant. No man can tell the day when Mudumallai Forest may not be called upon to furnish 4 or 500 tons of teak as it was in 1855 under my management, and we ought to be prepared for such a demand by steadily planting 15 acres every year—this should from no charge against the forest.

41. *Conduct and Health of Establishment.*—The Overseer Vencatappa Naidoo has done fairly well. I had several attacks of fever between April and August, and the establishment suffered somewhat.

42. *Criminal Prosecution.*—None.

43. *Free Pass*—We have no free passes in this forest, nor have we any inhabitants to speak of; in fact it is one the few forests quite reserved.

OOTACAMUND,
20th May 1874.

(Signed) H. R. MORGAN, Colonel,
Deputy Conservator of Forests.

SEEGUR FOREST.

Annual Administration Report of the Seegur Forests for the official year 1873-74.

The subject is treated as usual under the following Sections :—

SECTION I.—Inspection-tours of the Deputy Conservator.
SECTION II.—Reserves.
A.—Reserved forest and Contemplated operations.
B.—Fuel reserves and Contemplated operations.
C.—Plantations and Contemplated operations.
SECTION III.—License and Voucher forests.
SECTION IV.—Yield of forests.
SECTION V.—Financial results.
SECTION VI.—General Remarks.

SECTION I.

Inspection-tours.—*Vide* Section I. under Mudumallai Forest.

SECTION II.

Trees.	*Estimated No.*
Sandalwood (Santalum album).....	50,000
Teak (Tectona grandis)	100,000

2. *A. Reserved Forest.*—This forest belonging to Government contains forty square miles, and the estimated valuable trees thereof are as per margin.

3. *Operations—Felling and Digging Sandalwood and Roots.*—Forty bandy loads of sandalwood were felled and roots dug by the Coorumbers in the jungles of Amiakattay, Catiapoor, Mavanulla, and Seegur at an expense of Rupees 818-2-8.

4. *Felling Teak.*—Some teak logs have been felled and squared at an expense of Rs. 38-4-6.

Carting.—The above quantity of sandalwood and roots were brought on hired carts from the above places to the depôt at Musingoody with the aid of two pairs of bullocks from the Mudumallai Forest, at an expense of Rs. 136.

5. *Preparing.*—The above quantity of sandalwood and roots was prepared by Carpenters and turned into 994¼ maunds, of which maunds, 432¼ sandalwood and 562 of roots at an expense of Rs. 100.

6. *Comparison of Receipts and Disbursements.*—The receipts and disbursements of the current year could not be compared with that of the former year, as the transactions of the previous years were amalgamated with that of Sathiamangalum Forest.

	1872-73. RS. A. P.	1873-74. RS. A. P.
Receipts.....	.....	2,004 0 0
Disbursements.....	.....	1,413 1 2

7. *Contemplated operations.*—To fell 1,000 maunds of sandalwood and 1,000 cubic feet of teak and to bring the same to the depôts.

8. B.—*Fuel reserves and contemplated operations.*—None.

9. C.—*Plantations and Contemplated operations* :—

10. (1).—*Fuel Plantation.*—None.

11. (2).—*Timber Plantation, Sandalwood.*—It has been reported last year that a new sandalwood plantation in a very favorable site was opened. 5,000 plants were put out during the year, all doing exceedingly well. The total number of plants is now 14,000. Seven acres have been cleared for planting this year. The cost of the plantation for the official year amounts to

Rs. 1,386-4-10, total up to last year Rs. 2,081-4-1. Total of the whole up to the year is Rs. 3,467-8-11, or about 4 Annas a plant.

	1872-73 Rs. A. P.	1873-74 Rs. A. P.
Receipts	.....	.....
Disbursements	1,742 3 5	1,386 4 10

12. The receipts and disbursements of the year compared with that of the previous official year are as per margin.

13. The cost of the past year being more than that of the present is attributable to the weeding of old plants.

14. A Statement of cost, etc., of the plantation is subjoined:—

Name of the Plantation.	Year in which the Plantation was formed.	Area in Acres.	Description of Trees.	Number of Plantation.	Cost. During the Year.	Cost. Up to the year.	Receipts. During the year.	Receipts. Up to the year.
					Rs. A. P.	Rs. A. P.	Rs.	Rs.
Seegur..	1873	14	Sandalwood.	14,000	1,386 4 10	3,467 8 11	....	....

15. (3).—*Experimental Plantation.*—None.

16. *Contemplated operations.*—To plant seven acres and to clear seven acres for next year's planting.

Section III.

17. *Forests worked under License and Voucher System.*—The collection of seigniorage on firewood and bamboos, and of valum bark, has been let out on contract, and the full amount for the former, and one-half of the latter, *viz.*, Rupees 130, have been realized and credited to forest, together with Rs. 60 realized by removal of twelve bandy-loads of valum bark in November 1873.

	1872-73 Rs. A. P.	1873-74. Rs. A. P.
Receipts	.....	190 0 0
Disbursements	.....	.....

18. The receipts and disbursements of the current year could not be compared with the past year for reasons stated in paragraph 6 of this Report.

19. No timber except firewood and bamboos and valum bark is allowed to be removed on license and voucher system, and so no comparison can be instituted as regards the result of the license and voucher system with that of departmental working in order to explain which mode is the cheapest and most economical.

Section IV.

Yield of Forest.—The subjoined Statement shows the total yield of the forests, *i.e.*, the total quantity sold and removed free of payment. In fact no timber was removed free of charge.

Yield of Forest.

Timber. Departmentally.		Timber. On License.		Timber. Free.	Firewood for Railway and other purposes. On License.	Firewood for Railway and other purposes. Free.	Bamboos. On License.	Bamboos. Free.	Palmirahs.	Charcoal.	Forest Produce.
C. Ft.	Maunds.	C. Ft.	Maunds.	C. Ft.	Tons.	Tons.	Cart Loads.	Cart Loads.	No.	Tons.	Maunds
500	994¼	....	....	....	Given Contract.	....	Given Contract.	....	..	..	....

SECTION V.

21. *Financial Results.*—The expenditure is Rs. 2,799-6-0, inclusive of the fixed charges of Rs. 40 per month transferred from the Mudumallai Forest by the Board in their Proceedings, No. 183/5,747, dated 8th September 1873, and the receipts Rs. 2,194, which leaves a balance of Rs. 605-6-0 against the forest, but if the amount of Rs. 1,386-4-10 spent on plantation be treated out of account here, the net expenditure incurred for profit would be Rs. 1,413-1-2, which would then exhibit a profit of Rs. 780-14-10 to Government.

22. A comparison of receipts and disbursements of the current year with that of the past year cannot be made for reasons stated in paragraph 6 of this report.

SECTION VI.

23. GENERAL REMARKS—*Working Charges, Advance.*—Rs. 2,500 sanctioned for the working charges and drawn for the same during the year have been fully accounted* for by submission of bills pursuant to the instructions of the Board conveyed in their Proceedings,† No. 1,538, dated 9th August 1872.

* *Vide* Statement submitted on 24th April 1874.

† Paragraph 3.

24. *Permanent Advance Fund.*—A report called for by the Accountant General in his Circular No. 32, dated 5th December 1873, to the effect that the amount, *viz.*, Rs. 200, is due from and to be accounted for by me, has been submitted to that functionary through the Commissioner.

25. *Conduct and Health of Establishment.*—The Superintendent of the Plantation, Ponnusawmy Pillay, has done fairly well. Fever has somewhat prevailed in this Range.

26. *Criminal Prosecution.*—None.

27. *Free Pass.*—None.

(Signed) H. R. MORGAN, Colonel,
Deputy Conservator of Forests.

No. 238.

COLLECTOR'S OFFICE,
CAMP MADIGHERRY,
11*th June* 1874.

From

F. PRICE, Esq.
Acting Collector and Conservator of Forests, Salem,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue.

I HAVE the honor to transmit, with the usual statements, the Administration Report of the Deputy-Conservator of Forests for the year 1873-74.

2. Mr. Brougham was, during the year under report, 196 days absent from his headquarters, and his attention has principally been devoted to the exploration of the very feverish jungles on the Javadi and Yelagherri Hills in the Tripatore, and the Kollimallays and Puchamallays in the Namkul Taluq. He also inspected a portion of the forests of the Denkencottah Range, and frequently visited the fuel reserves. During his tours, Mr. Brougham has given his attention to the different forest products of the district, and has found many valuable fibres, lac

and true Chittagong on the Kollimallays. He has also devoted considerable time and trouble to the preparation of a list with descriptive notices of the trees found within his charge. I owe very much of the smooth and, I believe, satisfactory way in which forest matters have worked to his ability and application.

3. I am sorry to say that I have myself been unable to do anything in the way of inspecting. I was detained in Salem until December, and when I did go out, there were so many things to look to, that I had no time for any inspections, until the fever season was far advanced, and the illness, which has now compelled me to leave India, incapacitated me from bearing any exposure.

4. Mr. Brougham has not, in his present report, recorded any remarks upon his inspection tours ; but I consider it necessary to make the following observations touching those offered by me last year under this head.

(1.) With regard to the Ponnakadu (hoe) cultivation on hills, I have issued instructions that the Malayalies may continue to occupy the land which they now hold, or to take up ground which was formerly cultivated by them and was subsequently abandoned, but that, they are not to interfere with any virgin forest unless upon application to, and with the permission of, the Deputy-Conservator of Forests. These orders have been published in every hill village.

(2.) The Assistant Superintendent, Revenue Survey, who was deputed to look into the boundary dispute between the Neyamalai Muttah and the Peria Kulroyen Hills, decided, so it had been reported to me, that the slopes of the hills belong to the Muttahdar. I have written to the Superintendent objecting to this, on the ground that Government had no notice and have not has any opportunity of stating their case. My letter has not been replied to.

(3.) I have in vain tried to get the Poligar of the Chinna Kulroyens to come to terms about the hills of his poliem. He is willing enough, but is in the hands of a particularly wary and artful Chetty, who prevents his having anything to say to the authorities. I went out to the foot of the hills last December, where I remained for some time in the hope that the Poligar would come down and talk matters over ; but as usual he could not be found. I would have gone up myself, but the Tahsildar, who did all that he could to find the man, said that my appearance would be the signal for the Poligar's disappearance, and that the only chance was for him to go up alone ; which he did, but without success.

(4.) The necessary arrangements have been made with regard to the sandalwood plantation at Kanavainagasundaram. The bandy-track to the foot of the Mailgherry Hills has been put into excellent order for the first two miles, which was the worst part of it. A further portion will be repaired and improved during the current year.

(5.) Nothing has been done with regard to the Thuringi Forests along the banks of the Cauvery and Toppoor Rivers. The matter is one which must stand over until the question of fuel supply for Railways, which is now under consideration, has been disposed of. This will, if done properly and satisfactorily, take quite another year.

(6.) Instructions to open out timber depôts at Dharampuri, Shendamungalam, and Razipur have been issued. We have had, for the present, to close our bamboo depôts, as the renters of muttah jungles combined and undersold us. I have, in closing the depôts, put a stop to selling licenses to cut bamboos, except in exceptional cases. I have considered this measure necessary in order to let private persons cut the bamboo jungles in their possession out, which they very soon will do, and when this takes place, depôts, which I consider most essential to forest management, can again be opened.

(7.) The Kadathur Muttah dispute is in the hands of the Deputy-Conservator of Forests (*vide* G.O., Revenue Department, No. 158, dated 4th February 1874), and will, I trust, be settled during the current year.

SECTION II.

5. Reserved Forests A.—The forest ranges of Denkencottah and Tripatore, which are those held to be reserved, remained under the charge of the same officers as in the previous year. There was an increase in the quantity of timber cut and stored. The falling off under the head of sandalwood was the result of the necessity for letting the forests of this description rest.

Altogether the outlay on these ranges was Rupees 6,627-3-6, and the receipts Rupees 16,464-3-5, as against Rupees 5,830-10-7 and Rupees 10,495-5-7 in 1872-73.

It will be thus seen that the return for an expenditure of Rupees 796-8-11, above that of the preceding year, was Rupees 5,968-13-10, which speaks very favorably for departmental management. The increase in the receipts was due for the greater part to a large demand for timber and to some Acha logs, which were felled on the banks of the Cauvery and brought up to Pennagaram by coolies, having realized very high prices. If the ghaut had been open, we might have made much more.

The contemplated operations for the coming year will appear in the covering letter to the Forest Budget.

I may observe, however, that the estimate for the highly needful ghaut from Pennagaram to the Cauvery has not yet been prepared by the Department of Public Works. All that has been done has been to send me a sketch of a trace and an estimate for a bridle-path. The estimate for the Anaibidda Madugu Road has not yet been taken in hand.

This delay has not been my fault, for I have taken care throughout the year that the District Engineer should be frequently reminded of the ghaut. I trust that the construction of it will not be left to the Department of Public Works; for if it is, and they carry the work out at the rate that they generally do others in the district, it will be some three or four years longer before we are able to use it.

B.—Fuel Reserves.—As regards the A, B, C, D, E, Ummaneri, Tellapalle and Utengherry Reserves, I have nothing much to say. They have been carefully preserved, and only one accidental fire occurred. The system of allowing grazing and of renting the right of removing dead wood has no doubt operated most beneficially. The season was, throughout, an extremely bad one for planting work of all kinds. There was failure of rain at its commencement, and what few seedlings came on were cut down by the extreme heat of the early summer. The heavy rain, which we have recently had, will, I hope, tend, taken with the valuable advice of the present Acting Inspector of Forests on the subject of planting, to better results for the future.

Instructions to give up the Putchoor Plantation have been issued.

The Yelagherry Sandalwood Plantation is not encouraging. If it does not improve this year, it will be highly desirable to give it up. The locality is poisonously feverish, water is scarce, and gardeners are difficult to get. The condition of the Kanavainagasundaram Plantation in the Denkencottah Range is on the other hand very satisfactory, and I have every hope that it will prove an entire success. Instructions to extend it have been issued. The soil and position of this plantation are well adapted for producing good sandalwood, and I have no doubt that in time to come, it will be very valuable. I saw the nursery at Denkencottah, and think that it may be continued. The sandalwood trees in it have grown surprisingly, but they will never be good for much as the soil is too rich. The ground is, however, well suited for raising seedlings.

The plantation on the Shevaroy Hills continues to be a mistake, and the only reason why it has been allowed to remain on the list is, that the gardener employed upon it is also a forest watcher, whom we could not dispense with.

SECTION III.

6. *Forest worked under the License and Voucher System.*—It will be observed that the only taluqs worked under the license system were Salem and Namkul. In both of these, depôts

will soon be opened, and as these gain a footing, the issue of licenses, which I consider most inimical to Forest Conservancy, will be discontinued. There is no doubt that under the license system two cart-loads of timber are destroyed for every one taken out, to say nothing of the damage done, owing to the propensity of the native whenever he is in the jungle with any cutting instrument in his hand to " whittle" the nearest tree.

SECTION IV.

7. *Yield of Forests.*—It is impossible to make, for the year under report, any correct, or approximately correct, estimate of the amount of timber and firewood annually removed free of charge from the jungles for the use of the ryots, and until the staff of the Forest Department is strengthened, I do not see how data upon this point are to be acquired. I think the subject one which it would be better to leave alone until the forests have been demarcated and surveyed, and the question of Railway fuel-supply settled. Making the minute and in some case harassing inquiries which would be necessary will only lead to cause discontent and alarm amongst the agricultural classes. They have only recently had the new Revenue Settlement introduced, and I think that it would be as well to leave them alone for a time. There is almost everywhere sufficient wood to last for many years to come. It is the demands of the Railway, not those of the ryots, that are disforesting the country, and I would most strongly advocate this question being dealt with before anything is done as regards the other.

Our relations with the Railway in the matter of fuel supply are extremely unsatisfactory. I consider that the only method of remedying the existing state of affairs is, that the Company should either take entirely from us or not at all. The proprietors of muttahs within reach of the rail, who have no thought beyond to-day, are rapidly cutting down their jungles for Railway fuel, which they sell for a little less a bandy-load than our contractors can. The consequence is that the Company take from them ; that practically unlimited smuggling from Government forests takes place, and that we are with our petty establishment powerless to check it, for the Railway Company take from contractors' cutting, one in muttah and the other in the adjoining Government jungles, and if they combine, as I strongly suspect that they do, there is no telling what is stolen timber and what not.

SECTION V.

8. *Financial Results.*—The financial results for the year were Rupees 65,219-15-5, against Rupees 64,233-12-4. The receipts would, as Mr. Brougham states, have been larger if the sandalwood contractor had been paid in time. The increase is not a very great one, but it is one which I feel assured that coming years will see much larger.

SECTION VI.

9. (I.) *General Remarks.*—I have nothing to add to those made by Mr. Brougham.

(II.) *Conduct of Subordinates.*—The conduct of all the subordinates of the department has been extremely good. Of Mr. Brougham and his qualifications it is not necessary for me to say anything. I trust, however, that it may be found practicable to confirm him in his present office. Overseer Mahomed Ali Saib is an officer well deserving of promotion. I consider him fully qualified for a post higher than that which he now holds. He is energetic, hard-working and trustworthy. Overseer Mr. Franklin is, I have every reason to believe, a very good officer.

(III.) *Criminal Prosecutions.*—It will be observed that the number of prosecutions for forest offences was more than 50 per cent. less than in last year. The falling off was caused by more judicious management than heretofore, and the ryots being better acquainted with the forest rules.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) F. PRICE,
Acting Collector and Conservator.

DEPUTY-CONSERVATOR'S OFFICE,
SALEM,
13th May 1874.

No.

From

MR. J. H. B. BROUGHAM,
Deputy Conservator,
Salem Forests,

To

F. PRICE, ESQ.,
Collector and Conservator of Forests.

I have the honor to submit the Administration Report for 1873-74.

SECTION I.

2. *Inspection Tours.*—During the year under review, I have visited nearly the whole of the forests on the Javadies and the Yellagherri Hill Ranges in the Tripatore Taluq, a portion of the forests in the Denkencottah Range and the Kollimallays, and the slopes of the Puchamallays in the Namkul Range. I have also frequently inspected the fuel reserves in the Salem Taluq, and my total absence from head-quarters has covered a period of 196 days.

SECTION II.

3. A.—RESERVED FOREST—*Denkencottah and Tripatore.*—Overseer Mahomed Ali Saib has continued in charge throughout the year of the Denkencottah Range, and Mr. Franklin as Overseer of Tripatore.

4. These forest ranges are looked upon as reserved. Timber removed from them is effected departmentally and sales made; but in regard to bamboos, firewood and charcoal the usual license system is adhered to for the present, as the arrangement in connection with the opening out of depôts has not been quite decided on. With a view to meet the convenience of the agricultural lass who live at great distances from the depôts licenses were, however, granted as an exceptional measure.

5. In the Denkencottah Range, there were felled and stored 2,630-4-6 cubic feet of timber, 1,740-5 maunds of sandalwood, 273-19½ maunds forest products at a total expenditure of Rupees 1,725-6-5.

6. In the Tripatore Range, the following were the removals from the forest: timber 7,599-8-7 cubic feet, sandalwood 53-6 maunds, forest products 1-12½ maunds, and the expenditure Rupees 4,901-13-1.

7. The total expenditure in both ranges, on account of the removal detailed above, has therefore been Rupees 6,627-3-6 against Rupees 5,830-10-7 of the previous year, and the receipts Rupees 16,464-3-5 against Rupees 10,495-5-7 in 1872-73.

8. The increase in the receipts during the year under report has been attributable to the circumstance that there was a large demand for timber, and to some Atcha logs, which were felled in the Anabidda Mudugu Jungles of the Denkencottah Division, having realized profitable rates.

9. It will be further observed that for the difference of outlay, viz., Rupees 796-8-11, the return has been Rs. 5,968-13-10, a circumstance which speaks well for the departmental system.

10. B.—FUEL RESERVES.—*A. Reserve.*—The extent of this reserve is 2,560 acres. During the year 9 acres of ground were ploughed up and sown broadcast, the seeds germinated very satisfactorily, but in consequence of the failure of rain on which the success of planting of this kind in a great measure depended, the casualties became very heavy and only here and there a

few plants can be seen. There were also 1,239 pits dug and planted with different sorts of seeds, which have only germinated in places owing to the seeds having been rooted up and destroyed by rats. The number of casualties which occurred during the year was 508, the replaceals 412, the remainder 96 pits were re-opened and sown with vaimboo seeds, which have not germinated. The expenditure during the year has been Rupees 265-5-4.

11. *B. or Moroor Reserve* is 964 acres in extent. During the year the casualties were very large, and in consequence it was necessary to re-open and re-sow 300 chains of channels ; 420 pits had also been dug and sown with seeds. Among the transplanted trees, there were seventy-five casualties and forty-five replaceals, and the remainder thirty pits were sown with babul seeds. The expenditure during the year has been Rupees 243-8-1.

12. *C. Reserve*, extent 320 acres. During the year there were only 34¼ acres of scrub-jungle cleared, ploughed and broadcast with babul seeds. Through the failure of rain, the operations could not be extended ; there were 1,050 casualties and 1,000 replaceals, and 720 new pits and fifty-four old pits re-opened and sown with seeds of kinds. As this reserve is chiefly being improved under the broadcast system of planting, it is hardly possible to form an estimate of the number of casualties ; but there is no doubt that they have been very large, considering how bare the spaces look now to what they did about the beginning of the official year. If the casualties continue to be as large as they have been, there is no doubt that work will have to be done over again ; but if the existing plants hold out till we get a few showers of rain, I am of opinion that it will not be necessary to replace the lost plants, as the surviving ones will suffice to cover the ground. The expenditure has been Rupees 610-8-7.

13. *D. or Burgoor—E. or Pudoor Reserves.*—The extent of the former is 1,600 acres and the latter 2,400 ; these for the most part being hill reserves, as mentioned in my previous reports, there has consequently been but little chance for improving them ; however, gaps which occurred here and there have been dug and sown with seeds ; the number of pits dug in each reserve during the year has been 480 ; the fences of both reserves have suffered much damage from the wild boar, which uproot the aloes on every occasion that they are replaced ; the expenditure on the D. Reserve has been Rupees 75, and on the E. Reserve Rupees 78.

14. *Ummanary Reserve* is about one and half square miles in extent. 178 pits had been dug and sown with seeds, the expenditure has been Rupees 72.

15. *Pellapully Reserve* about four square miles in extent. During the year 920 pits were dug and sown with seeds, and an expenditure of Rupees 200-1-10 has been incurred in fencing. An accidental fire broke out in the reserve, but the damage was confined only to some clumps of bamboos which had seeded and died off. The expenditure, including the above item of Rupees 200-1-10, has been Rupees 210-1-10.

16. *Utengherry Reserve* about one square mile in extent. 108 chains of ditch and bank and ten chains of stone wall had been constructed, and the expenditure has been Rupees 239-8-0.

17. During the year, the expenditure on all the reserves has been Rupees 1,866-8-2 against Rupees 1,585-7-4. The increase is attributable to extension and improvement of the several tracts under notice and the fencing of a new reserve. The receipts have been Rupees 89, being the amount realized on the sale of tamarind trees.

18. PUTCHOOR.—The extent of this plantation is 9 acres. Fifty measures of babul seeds were sown broadcast over two acres of ground, and 100 pits re-opened and re-sown ; the casualties have been very heavy, which is partly attributable to the failure of rain and partly to the nature of the soil which is poor. Several attempts have been made to reclaim the land ; but, as they have all proved unsuccessful, it appears advisable that the site should be abandoned. The expenditure incurred during the year has been Rupees 55-5-9.

19. YELAGHERRY—*Sandalwood Plantation.*—At the commencement of the year under report, the surviving plants numbered 905, but through failure of rain, there were only 146 plants existing on the date of my inspection in November last, and these at the time looked very unhealthy. From reports subsequently to hand, I learn they have all perished. It is a matter much to be regretted that a supply of water on the spot for watering the trees could not be obtained, otherwise the trees may have been saved. There has been also great difficulty in obtaining the services of a gardener for the plantation on account of the unhealthiness of the locality. I endeavored to obtain the services of one of the resident Malayalies, but they are apparently very reluctant to take employment owing to their field duties. Expenditure—*Nil.*

20. *Canaganavasoondrum.*—This plantation is situated near the foot of the Mailgherries, about 20 miles south-east of Denkencottah, and is about 3 acres in extent, but capable of extension. 2,385 plants have been established, and, on the date of my inspection in March, they were in a very healthy condition ; the average height is about 6 inches, the plants have been sown in rows at a distance of 4 to 6 feet apart ; the expenditure incurred during the year has been Rupees 256-9-6.

21. DENKENCOTTAH.—*Sandalwood Nursery.*—This has been established in the compound of the office, and a series of experiments have been carefully made and noted with a view to ascertain the method for growing this valuable tree. 153 plants which were planted out during the year 1872-73 were measured by me in March last, and were found to have attained an average height of 5 feet ; it is proposed to keep up this nursery in order to improve the sandalwood tract at Sunjevaramanoor. The expenditure incurred on the experiment during the year has been Rupees 47-14-10.

22. *Shevaroy Hills.*—The existing trees in this plantation have been weeded, etc., during the year, and the plantation has not extended as the soil is unfavorable. The condition of the plants except the Eucalyptus and the Belgaum Walnuts is not encouraging, being much stunted in growth. This may be attributable to the nature of the soil, but I am of opinion that it is more attributable to the frequent attacks of the goat moth ; the expenditure during the year has been Rupees 173-4-7.

SECTION III.

23. *Forest worked under the License and Voucher System.*—The Salem, Ahtur and Namkul Taluqs have been worked under the license system, and the attention of the Department has been mainly directed to the preservation of the more valuable kinds of timber and to the prevention of smuggling. There has been, however, a small quantity of timber removed from the forest departmentally to supply a small depôt at Salem ; the bamboo jungles of the Salem Taluq were also worked by departmental agency for four months and brought in a good revenue—*vide* Appendix A. The subjoined statement exhibits the removals under license and free passes in all the ranges during the year under notice compared with that of 1872-73.

License Removal.

District.		On License.						On Free Passes.			
		Cubic feet of Timber.	Bandy-loads of Charcoal.	Bandy-loads of Bamboos.	Bandy-loads of Bark.	Bandy-loads of Firewood.	Tons of Engine Fuel.	Bandy-loads of Timber.	Bandy-loads of Firewood.	Bandy-loads of Bamboos.	Head-loads of Charcoal.
							Tons. lbs.	Cubic feet.			
Salem.	1872-73 ...	50,400	1,990¼	11,555	488	16,388	4,802 1	53,584	2	1,400	...
	1873-74 ...	27,216	2,636	5,757	373	2,877	4,420-1,007	Bandy-loads. 2,624	69	1,563	4
	Amount realized.	3,473-11-0	.....	4,852-9-0	...	.....	.....	.....	....	...	...
	DEPÔT SYSTEM.	Cubic feet.									
	1873-74 ...	9,709-11-9	.....	1,441	...	.....	.....	.....	...	...	...
	Amount realized.	8,808-4-8	.....	8,358-1-6	...	.....	.....	.....	...	...	...

SECTION IV.

24. *Yield of Forest.*—The yield of the forest for the year under review has been as follows. I have no accurate data of the quantity of fuel removed by the agricultural classes without passes, but there is no doubt it has been very large. In many of the large villages and towns which I have passed through, I made a note of the average daily removals which I have entered in Column V., but by no means does it represent even one-third of the supplies obtained from the jungles by the inhabitants.

Description of Articles.		Departmental Removals.	Removals on Licenses and Vouchers.	Removals on Free Passes.	Removals without Passes.
Timber	C. ft.	10,353 2 7 lbs.	27,216	Bandy-loads. 2,624	.....
Sandalwood	Mds.	1,793 11	.....	.....	.....
Bamboos	Bandy.	1,441	5,757	1,563 Head-loads.	.....
Charcoal	do.	.....	2,636	4	.....
Bark	do.	.....	373	.....	.... Head-loads.
Firewood	do.	.....	2,877	69	248,200
Engine Fuel	Tons.	..... lbs.	Tons lbs. 4,420 1,007	.....	.....
Puply	Mds.	7 7	.....	.....	.....
Honey	do.	1 15	.....	.....	.....
Bees-wax	do.	3 3	.....	.....	.....
Seeakoy	do.	267 19	.....	.....	.....

SECTION V.

25. *Financial Results.*—The financial results for the year have been Rupees 65,219-15-5 against Rupees 64,233-12-4 of 1872-73.

26. The receipts would have been augmented by about 4,000 Rupees had the sandalwood contractors received charge of the sandalwood from the depôts previous to the expiration of the year, and notwithstanding they were called on to do so on more than one occasion, failed and I have not been able to ascertain the cause of their default.

SECTION VI.

27. *General Remarks.*—The bamboos in the Tripatore Range were farmed out during the year and realized Rupees 3,749-11-0, the removals were confined to 300 bandy-loads per mensem, and the contractor was restricted to cutting in certain localities which were marked out from time to time by the department. The bamboos so cut were to be removed through certain Tannahs where the quantity was registered. The removals by the contractor have fallen far short of the limit placed in them, which is represented to be partly owing to bamboos being brought into the market from private sources and partly to an epidemic fever which broke out and prevailed for three or four months and from which the woodcutters were great sufferers.

28. It was considered expedient to continue the farming of dry wood as a preventative against the fires doing much injury and taking a wider spread in the jungles. The amount realized therefore on this account during the year has been Rupees 3,076-12-0.

29. An attempt was made in the Salem Range to work the bamboo jungles under the depôt system, and depôts were established at Vadagumputty, Salem, Rasipore and the Shevaroy Hills, and during the short time the same was in existence the sales were highly satisfactory. The town traders, however, not to be done out of the profits accruing to them from the sale of bamboos, entered

into a combination and arranged for getting supplies from muttah jungles under the impression that the Forest Department would be compelled to return to the license system. The Department could not sell at such low rates as the merchants, and with the concurrence of the Collector and Conservator it was deemed expedient to close the depôts for the present.

30. A small timber depôt has been maintained in the Salem Range for the purpose of supplying the Public Departments, but the sales during the year have been very small.

31. It was my intention to increase the number of depôts in this district, but as I found that the town traders were underselling this Department and were able to effect this object with ease with the facilities they have of obtaining timber at very nominal rates from muttah jungles, I did not consider it advisable or expedient under the circumstances to enlarge the number of depôts. In the same manner during the year under report, the Railway Company acquired large supplies not of fuel from private sources, in consequence of which the Government have not contributed as largely as hitherto, making a corresponding reduction in the revenue of the forests for the year.

32. ROADS.—The road from Pennagaram to Odaputty has been repaired during the year, but the only drawback to convey timber from our Atcha Forest has been the ghaut over which it is impracticable to take carts. A trace for a new ghaut road admitting of wheel traffic has been completed, and it is hoped that during the next official year, we shall be able to unlock the forest looking to the Cauvery, which has hitherto not been tapped.

33. The roads from Pennagaram to the Chenar and Cauvery, and two miles of road from Denkencottah to the Mailgherry Hills, have also been repaired at a total cost of Rupees 756-8-0.

34. CONDUCT OF SUBORDINATES.—The conduct of the subordinates generally has been all that could be desired. They have sufferred much in health however during the year, which has been a most unhealthy one; four deaths from fever occurred among the peons.

35. CRIMINAL PROSECUTIONS.—The number of criminal prosecutions have been 124, in which 417 were concerned and 311 convicted.

36. I hope it will not be considered irregular for me to allude in this report to a little I had done in the matter of exhibiting specimens of woods, gums and dyes, etc, at the Vienna Exhibition on behalf of the Department and the district. At this Exhibition, the Judges awarded a medal to the collection that I had made and forwarded. Another attempt that I made at the Madras Agricultural and Agri-Horticultural Exhibition on my own behalf met with success, and prices were awarded of the specimens of fibres, woods, gums, and wax.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) J. H. B. BROUGHAM,
Deputy Conservator.

MANGALORE,
19th September 1874.

No. 1,896.

From

E. GIBSON, ESQ.,
Acting Head-Assistant Collector in charge of South Canara,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue.

SIR,—As desired in your telegram of yesterday's date, I have the honor to forward, herewith, a copy of the Collector's Forest Administration Report or rather letter (without enclosures), submitting with his remarks the Deputy Conservator's Report for the past official year 1873-74.

2. With reference to paragraph 3 of that letter, I beg to state, that from the reply since received from Mr. Cherry it appears that, during the year under report, he made five tours, and the aggregate number of days he was on circuit amounted to seventy-three.

ENCLOSURE No. 1.

MANGALORE,
11th August 1874.

No. 1,524.

From

H. S. THOMAS, ESQ.,
Collector of South Canara,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue.

SIR,—I HAVE the honor to forward my Deputy Conservator's Administration Report for the past official year 1873-74. My already written letter, No. 1,489, dated 10th August 1874, being of the same nature, my remarks here will be very brief.

2. *Section I., paragraphs 6 and 7.*—It has been pointed out in return that there is a great deal of unnecessary office work which should be dispensed with, and the residuum of necessary work facilitated by printed forms.

3. I took opportunity to visit the forests during five of the seven tours I made in the district during the official year under report, and the total period of my absence on circuit amounted to 154 days. I have asked Mr. Cherry to state the period he was out on inspection duty, but not having yet received a reply from him, I am unable to supply this want in this report which is already over-due.

4. *Section II.-A., Reserved Forests, paragraph* 9.—It is for the Deputy Conservator to indicate what sites should be reserved. He has been called on to do so.

5. *Paragraph* 11.—Measurement immediately on felling would have obviated this difficulty as well as the others mentioned in my report.

6. *Paragraph* 14.—Mr. Cherry seems to refer to other than elephant work, for which he failed to obtain contracts. In view of the heavy rates of hire charged by the merchants for their elephants, I have addressed the Inspector of Forests regarding the advisability of purchasing them for the department and shall address the Board on the subject on receipt of a reply from him.

7. *B., Fuel Reserves.*—There are none, because my clear and repeated orders have been neglected. This neglect has been reported in my above-quoted letter.

8. *C., Plantations.*—The Parapa and Hospet reboisements and plantations are in accordance with my views, except that there should be many more of them, and that the Rupees 1,088 left unspent could have been well used thereon.

9. With reference to the Casuarina failure it will be sufficient to extract from the remarks in my former letter that "the Revenue Department avoided a like failure by having earlier sown and therefore stronger seedlings, by planting in June instead of July, by watering and shading in the breaks, and we had breaks too."

10. Both these questions are already noticed at length in my above-quoted report (paragraphs 196 and 197).

11. *Section III., Forest worked under License and Voucher system, paragraph* 29.—The License system or felling of timber in Government Forests on seigniorage should in my view be entirely stopped, and be rendered unnecessary by ready departmental sales. I have so ordered.

12. *Paragraph* 36.—I have given very distinct orders, as will be seen in my former report (paragraphs 109 to 122).

13. *Paragraphs* 37, 38, 39.—If the Deputy Conservator had obeyed his orders to examine and report the tracts to be taken up, communal rights would have been duly examined and real conservancy effected by extra watchers.

14. *Paragraph* 72.—The "writing off" *Anglice* loss of Rupees 7,103, in 1870-71 in consequence of deterioration is a strong argument for proper seasoning, (paragraphs 66 to 73 of my former report).

15. *Paragraph* 80.—At present the local market is ill supplied and in consequence draws largely on Malabar.

16. *Section IV., General Remarks, paragraph* 81.—The Deputy Conservator is right. There certainly has been no "harmonious working." How could it be expected when the subordinate was systematically insubordinate, as reported at length in my above quoted letter.

17. *Paragraph* 82.—Not less, but more assistance has been given as shown in paragraphs 173 to 184 of the said letter.

18. *Paragraph* 84.—This officer has a right of appeal and has used it. His reports also have been freely forwarded.

19. *Paragraph* 85.—This is a general assumption, not to say presumption, without any case in point.

20. *Paragraphs* 86 *and* 87.—A better establishment is necessary, has been reported and awaits the sanction of higher authority. When given that establishment will itself be able to remove the majority of the difficulties mentioned in these two paragraphs. But more might have been done with the present establishment than has been done for want of diligence.

21. *Paragraph* 90.—There have been no vacancies for Overseers. As regards them therefore the difficulties spoken of would seem to be ideal rather than real, and this sketch a fancy portrait. The present Overseers are old appointments of the Forest Department.

22. *Paragraph* 91.—This must be Overseer Gowdie. I fully expected to be in a position to get rid of so indifferent an Overseer. I cannot but think that had the Deputy Conservator's duty been properly done, there would have been no lack of proof. As it is, we differ only in that I have declined to dismiss him as asked on "suspicion." If the Board care to see the papers, I shall submit them with pleasure. They are not unnoticed in my letter above quoted (paragraphs 185, 196).

23. *Paragraphs* 92, 93, 94, 95.—Recognition of deserving services must unavoidably be postponed to the sanctioning of the proposed improved establishment.

24. *Paragraph* 97.—The transfer of the Overseers was rendered unavoidable by the result of the inquiry referred to in my paragraph 22 *supra*, and the persistent employment of another Overseer by the Deputy Conservator as a Clerk in his office, and the hand-writing of the enclosed accounts is that of the same Overseer, even though he is now in a distant range. The transfer was unduly delayed by the Deputy Conservator, and if my instructions had not been disregarded, would have facilitated a more thorough stock-taking than usual. That it has not been taken is to my mind unsatisfactory.

25. Criminal prosecutions were instituted in twenty-nine* cases for offences against the Forest Rules. Their number has fallen off since 1871, Kumaki holders being now treated more leniently under the more liberal principles† advocated by the Board and partly acted upon by Government in that year.

* 24 Convicted.
4 Discharged.
1 Acquitted.
—
Total.. 29
—

† Board's Proceedings, 21st March 1871, No. 1,222.
G. O., 31st March 1871, No. 603.

26. Under the present unsettled state of Kumaki and Kumari rights and the unsatisfactory administration of my Forest Deputy, the people can scarcely be expected to appreciate the advantages of Forest Conservancy. Their general feeling is therefore one of dissatisfaction at the department.

27. As already reported in my letter, No. 1,019, dated the 13th August 1872, the system of free passes is not, to my knowledge, in force in this district, in consequence of the existence of Kumaki privileges. Consequently there are no data from which the quantity of timber and fuel removed free of payment can be calculated even approximately.

I have etc.,

(Signed) H. S. THOMAS,
Collector.

(True Copy.)

(Signed) E. GIBSON,
Acting Head-Assistant Collector in charge.

ENCLOSURE No. 1.

DEPUTY CONSERVATOR'S OFFICE,
MANGALORE, 30*th June* 1874.

Report No. 353.

From

J. W. CHERRY, ESQ.,
Deputy-Conservator of Forests, South Canara,

To

H. S. THOMAS, ESQ.,
Collector of South Canara.

SIR,—I have the honor to submit my Administration Report for the official year 1873-74, and to annex in the prescribed form, the Statements in duplicate, A, B, C, D, E, F, Gs and H, together with the Stock Register E required by the Revenue Board.

2. In drawing up my report, I have observed the arrangement desired in the Revenue Board's Memorandum, No. 22-222, dated 20th February 1874.

SECTION I.

3. *Inspection Tours.*—During September, October and November, I inspected the Kassergode Range, paid two visits to the Teak planting operations at Parapa, and toured through the district with the Inspector, visiting the Catechu localities, and Sandal-still firewood tracts.

4. In February I again travelled through the Kassergode Range and inspected the Revenue Teak planting at Kunyangai on the river Kavoi.

5. In March I visited the Udipi and Kundapur Ranges to superintend certain depôt auction sales.

6. My Range Inspection tours have been hampered by an abundance of Office work, and a deficiency in Office assistance.

7. This drawback has been often represented by me, and I only mention it here to account for what would otherwise appear to have been an insufficiency of time spent on this particular duty.

8. My service travelling for the year extended over 800 miles.

SECTION II.

RESERVES.

9. *A., Reserved Forests.*—Each year I experience the same difficulty in making remarks under this head, because of the absence of definition regarding what our reserved forests are.

There are no forests demarcated or even set apart as reserves. All our ghat forests have been styled "Reserves," and so they are in one respect, for they are so inaccessible at present that neither the department nor others are tempted to work them, but all the forests lying at the foot of the ghats, and others further sea-ward that the department have been in the habit of working, are so intersected with Warg and Kumaki holdings, that it would not be safe to regard them generally as reserves. However, until portions are marked off and handed over exclusively to the department, I conclude it is better to follow the supposition that the whole tract is a reserve, and treat it accordingly under this head.

10. The Departmental operations in these forests then, during the past year, have been as follows :—

11. No felling results have been brought to account, as, up to close of the year, no measurements had been taken. Owing to the large quantity of stock in hand, a few logs (some 300) only were felled towards the close of the year. These are all left in the round as an experiment in opposition to squared timber which it has been thought offers less chance of good seasoning.

12. By means of hired elephants, 1,600 odd cubic feet of timber were dragged from forests to road-side or river's bank.

13. The produce carried from forests to the coast during the year was as follows :—

Cubic feet of timber	7,780½
Bamboos	9,400
Boats	2
Billets of firewood	205

14. Most of this work was performed under contract, which satisfactory form of labour I am doing my best to encourage.

15. Under this head, a comparison between receipts and expenditure for the year under notice, and the previous one, would show an increase in the revenue under (Heading I. in the Accounts) of Rupees 3,500 odd, and a decrease in the expenditure (under Headings I. and III. in the Accounts) of Rupees 2,500 odd.

16. The increase on receipts is due to a better demand for depôt stock, while the decrease in expenditure, though owing in a great measure to curtailment of operations, is, I am glad to think, somewhat due to the gradual reduction of rates.

17. *B. Fuel Reserves.*—There are none in the district under the care of the department.

C. PLANTATIONS.

18. The accompanying Statement H gives certain information under this head. The number of trees set out at Parapa during the year were 9,300.

It is difficult to give accurate details regarding the total area, extent cleared this year, etc., of this planting, as the form of operations there now bears more the nature of "improvement of Forests," or (under the new Budget heading) "Reboisement," than of Plantations.

19. The Parapa Forest is one reduced to secondary growth by Kumeri cultivation some fifteen or twenty years ago, and from the oft-occurring patches of Teak Suckers and Saplings, gives evidence of having at one time borne much of this valuable timber.

20. Such evidence, carrying with it the conclusion that the whole locality was apparently favourable to Teak growth, led to the commencement there of a regular Teak plantation. The best site, a small patch, was first selected, and has fully answered anticipation, but unfortunately the surrounding land is so diversified in nature as to discourage contiguous extensions.

21. Here and there, within a radius of 3 or 4 miles of this first artificial planting, there exists well sheltered nooks and fairly favorable patches of soil, that would re-pay further operations.

22. I have therefore lately endeavoured to greatly extend this work, and instead of confining myself to contiguous teak planting alone, I have contemplated the improvement of the Parapa forest generally, cutting out inferior timber and under-growth, pruning and encouraging

the growth of deserving trees, and planting up available portions with Teak as a rule, but sometimes with other descriptions of timber, according to the suitability of the soil and position.

23. The whole extent of this work should therefore, more properly speaking, come under the head of "Forest improvements" than that of plantation.

24. In the same way, I am endeavouring to improve a well marked piece of forest (it is bounded by the Hospett, Hebbri, and Ajekar roads) in the centre of our operations in the Kundapur Range.

25. In accordance with instructions, an attempt was made last year to plant up with Casuarinas a certain extent of sea-shore immediately to the south of Mangalore. I regret to state that the result has been a disappointment.

26. A nursery of some 10,000 healthy seedlings was formed, and the plants, then on an average of from 13 to 15 inches high, were satisfactorily set out during the first monsoon rains.

27. I regret that the Collector has expressed an opinion that blame for their failure is attributable to myself or subordinates, or "both." I beg respectfully to maintain here my belief that their collapse was due entirely to the unusual and unexpected drought that immediately followed their setting out, and which drought was characterized by an absence of cloud, as well as rain, for twenty-one days in July, a month generally credited in these parts with the heaviest rain-fall.

28. The cost of this experiment was Rupees 506, from which, deducting the sale of material collected for the plantation, leaves a loss of Rupees 486.

SECTION III.

29. *Forest worked under License and Voucher system.*—I find no particular forests in this district to which this heading is properly adapted, for, as I before pointed out, the forest from which produce is drawn, both departmentally and on license, are so closely connected that it is difficult at present to separate them.

30. I will, therefore, treat here only of such forest produce disposed of as has been taken out under license by payment of seigniorage. Such is shown in detail in Statement E. attached.

31. I have added below a memorandum showing the sums realized during the year from the several sources as compared with last year's receipts :—

Headings.	1872-73.			1873-74.		
	RS.	A.	P.	RS.	A.	P.
Timber	1,042	13	1	1,318	12	10
Palmyras	72	0	0	...	...	...
Bamboos	3,076	8	0	2,905	8	0
Charcoal	45	0	0	50	0	0
Firewood	7,285	8	9	5,050	1	3
Sandal farms	2,457	0	0	1,236	0	0
Catechu	3,312	8	0	462	0	0
Cardamoms	350	0	0	700	0	0
Tanning bark	...	...	...	31	4	0
Total...	17,641	5	10	11,753	10	1

32. In the sale of timber there has been a small increase over last year.

33. A falling off of over Rupees 2,000 is shown in the firewood sales. These sales are on account of the contract working of stills for the extraction of Sandalwood oil, and are therefore connected with the sale of sandal farms, from which also in the above memorandum is shown a falling off of 1,000 odd Rupees.

34. This source of revenue has of late years shown signs of weakness owing to the uncertainty with which it is worked, and to the disfavor shown by the contractors to the few attempts that have been made to restrict the extent of their felling operations.

35. The Sandal farms must either be altogether given up, or some arrangement and power must be given to the department by which they may effectually check anything like the reckless felling that has hitherto characterized the working of them.

36. There has been much correspondence about this, but nothing satisfactory has yet been settled.

37. There has been almost a complete falling off in Catechu sales this year. As anticipated and often represented by me, to attempt to secure a steady revenue from an area of Catechu trees (or indeed of any Forest produce) which is open throughout to cattle and public trespass, or to expect its reservation by aid of one or two peons, and a conviction now and then of parties *who must have been actually seen in the act of robbing*, must as in this case result in disappointment. The Catechu tracts are now so exhausted as to require a long rest, and that rest will be exceedingly doubtful, unless stringent measures are adopted to secure it.

38. The idea of taking up portions of Catechu tracts, fencing them in, and planting, etc., is a good one, but in the outset there is the difficulty of communal and grazing rights, etc , which, if any of this land is to be so treated, must be over-ridden.

39. My intention to have selected such tracts this year I have been unable to carry out, owing to occupation on other matters.

40. The differences in revenue under the other items in the memorandum under notice are so slight as to excuse further remarks.

41. In comparing results of timber sold on seigniorage by license and that prepared and sold by the agency of the department, it appears that the former realizes 0-5-6 per cubic foot against the average cost 0-8-10 of preparing the latter, and would seem to intimate that our timber has a more remunerative value when standing, than when brought to the coast market.

42. It must not, however, be forgotten that this 0-8-10 *includes* the standing value which is brought to account as soon as the timber is felled. The standing value has hitherto been nearly, if not quite, as high as the seigniorage charged on trees felled on license.

43. The 0-8-10 rate shown as the average cost of our timber in stock up to the end of the year, does not, however, include supervision by establishment.

44. The result of our departmental preparation and carriage of timber is a subject I propose to discuss further on.

45. *Section IV., Yield of Forests.*—This is shown in Statement G. annexed. As before stated the few trees felled departmentally have not been brought to account.

46. During the year I held five auction sales at Coast depôts and disposed of 7,937 cubic feet of mixed timbers, two poon spars, and 18,783 bamboos. The results were, on the whole, satisfactory ; the timber sales averaging 9 Annas per cubic foot. In addition, 2,324 cubic feet of timber, and 100 bamboos, were supplied to the Department Public Works. The rest of the stock disposed of was on individual applications.

47. *Section V., Financial Results.*—The accompanying Statement A. shows the receipts and charges for the year, while F. shows the net results obtained in cash and stock.

48. The aggregate receipts and charges for the year are each about Rupees 3,000 less than for the year before, so that the annual cash result in favor of Government differs little from the previous one.

49. The decrease in stock is, however, 5,019, thereby giving a net loss in cash and stock results of Rupees 1,547 against a net gain of Rupees 9,943 for the year before, or a decrease difference between the two years of nearly Rupees 11,500.

50. This difference is mainly due to the fact, that while the cash receipts under Conservancy this year were 6,000 odd Rupees less than the last, the value of stock brought to account was also less by Rupees 7,000. Otherwise, (with the exception of the deductions from stock Rs. 1,098, entered under Destruction, and used by the department) the results are more favorable, as the sales of stock exceeded last year's by nearly 3,500, and resulted in a small profit over valuation, instead of a small loss, as shown in the previous account.

51. The decrease in receipts under "Conservancy" and in "Additions to Stock" are due, as before explained, to the falling off in revenue from the Sandal still and Catechu resources, and to the restricted stock of felling operations.

52. The stock losses under "Destructions, etc.," are due to thirty-eight logs having been burned, while eighteen were lost during floatage to the coast. In addition 2,000 bamboos were used by the department in repairs to huts, and are entered under this heading in the absence of a more suitable one.

53. In order to compare this year's operations with those of previous years, and with the view of showing in a compact form the results of forest work in this district from as far back as possible, I have compiled and attached two Statements J and K, in which I have endeavoured to concentrate as much information as possible.

54. Statement J shows the net results in value obtained under several headings in the two main working accounts—"Conservancy" and "Stock."

Statement K shows how this result value is divided and represented by "Cash," "Stock," and "Improvements."

55. Not having previous accounts with me, I have only been able to show progressive net results since the year 1863-64, and have started the Statements with the balance of stock I find on hand at the end of that year.

56. It is to be regretted that I have not been able to bring forward the aggregate of cash and stock results obtained during years *previous* to 1863-64, but anyhow, having made a beginning, it will be satisfactory to be able to produce each year an account containing particulars as I have now shown them.

57. Owing to the difficulty of collecting information from past accounts, there are sundry particulars in the present Statements that are not shown *in detail*. The entries however, are correct in the main, and it will be possible to show the details in future additions with sufficient accuracy.

58. It will be seen from these Statements that the result of forest work in this district has been a gain in value since 1863-64 of Rupees 1,03,872 in conservancy working and Rupees 35,447 in the working of stock, or in all of Rupees 1,39,319, which result is represented in Statement K by cash Rupees 92,381, a present balance of stock Rupees 27,110, and a value of Rupees 19,828 in improvements to property.

59. In the same way the results may be seen for the past ten years either separately or collectively.

60. The net results for the year under report are shown as a gain of Rupees 854, whereas in the other prescribed forms furnished, it is shown to be a loss of Rupees 1,547. The difference is owing to *my* net result including Rupees 2,401 under "Enhancement of property," which item is not taken into consideration in the other accounts.

61. In these Statements I have introduced an "Improvements account," as I consider it fair that all expenditure on plantations, purchase of cattle, tools and plant, or any other for which an improvement or equivalent return in value may be estimated to have been obtained should go to such an account and be *credited* to the department, otherwise it will unfairly and largely detract from conservancy results under other headings.

62. At present I have credited this account under "Enhancement of property," only with the amount of expenditure and supervision thereon; but, should it become possible hereafter to fairly estimate the value of our plantation, reserves, etc., on the annual enhancement thereof, this

could be entered instead, while in the column provided all detractions from value, such as losses in cattle, or machinery, transfer of stock to "Stock Account," etc., should be shown.

63. In reviewing the transactions for the past ten years, as shown in Statements J and K there are interesting points to be observed. These will doubtless suggest themselves, and I deem it unnecessary to remark hereupon more than the most important.

64. Under conservancy in the Cash Account it will be seen that, while expenditure has steadily increased, there has been an uncertain and fluctuating revenue, which from 1870 has gradually fallen off, the present year's receipts being 6,000 odd Rupees less than the average for past ten years.

65. The increase in expenditure is due principally to additional charges under establishment. On the other hand, while seigniorage collections have not improved, those from rents, farms, etc., are much reduced.

66. Doubtless the increase in establishment has led to improved conservancy, and this is an important object; but in this district I think that such result should be in a measure indicated by an improvement in the collections of both seigniorage and rents, and I feel certain that this would be so if the difficulties that I am often recounting, and mention again in my paragraph 86, were provided for, and more authority and importance vouchsafed to the Forest Establishment.

67. We are each year losing instead of gaining seigniorage, and this more particularly in Kumaki timber, in which the growing uncertainty regarding the rights of the department and Kumaki holders in Kumaki produce interferes much with collections.

68. Under Rent collections it has been the same. These latter are principally realized from the Catechu and Sandalwood still farms, and the department has never possessed the necessary power to sufficiently ensure and control the working of such on conservancy principles. The consequence is, the first have been exhausted (for a long time at least) and the second have entailed such mischief to the forests that they have been discouraged of late.

69. The reason collections under Rents rose so rapidly in 1870 and 1871 is due to the firewood rate having then risen from 3 to 9 Pies per headload, and the subsequent falling off is in consequence of my having endeavoured to restrict the facilities with which the contractors were enabled to obtain a ready amount of first class firewood at the sacrifice of many of our most useful timber trees.

70. Other points to be observed in connection with the past year's results may be detected in the Stock Working Account. It will be seen that the value of stock estimated to have been obtained, exceeds the expenditure on the obtaining thereof by Rupees 37,898. On the other hand, in the Sales Account, the sales realized Rupees 11,793 *less* than their valuation, clearly showing that the estimated value put upon the stock when brought to account was too high.

71. This may be more particularly seen by comparing Columns 15 and 18 in Statement J., where, in consequence of greatly over-estimating the value of stock obtained in the year 1866 to 1868, there resulted large apparent losses in sales during the three succeeding years.

72. In Column 18 it is satisfactory to find that the subsequent results betoken a fairer valuation of stock; at the same time it will be seen that this is mainly due to Rupees 7,103 having in 1870-71 been written off the account under Deterioration and destruction.

73. I think in future it will be more satisfactory and facilitate the deduction of conclusions regarding results to leave the consideration of "Intrinsic standing value" out of the question, and merely debit the several descriptions of stock with the actual expenditure incurred thereon, with perhaps a small charge (of say for timber 2 Annas per cubic foot) as the "cost of production."

74. I come now to a most important point. It will be seen in Statement J. that the net profit on "Stock working" for the past ten years (shown in Column 22 to be Rupees 16,569) is an average annual gain of about 18 per cent. on the outlay which is shown in Column 13 to have aggregated Rupees 88,650.

75. This is so far satisfactory, but it will also be seen that though I have debited the Stock Working Account, with all cash expenditure pertaining thereto, I have not added a percentage on account of supervision of the establishment. This I have omitted partly because it has not been included in Head-quarter Accounts (with which I have endeavoured as much as possible to make my statements agree) and partly because I know not what proportion, or if any of the establishment may be considered to be kept up solely for present timber operations.

76. I would suggest that the forest produce felled should not be burthened with any share of the cost of the establishment, which I take it is kept up for the conservancy and protection of *standing stock*, to which the amount of stock felled annually bears an exceedingly small proportion.

77. To my mind an account with "Standing Forest Stock" should be opened, and this should be debited with all such expenditure, while, on the other side, it would be credited with a proportionate value for all stock felled and carried to the Stock Account, in which latter account such value (being "cost of production") should be debited.

78. Be this as it may, the fact I wish to bring to notice is that, judging from the past ten years' account, our stock net result would have been *nil* had the expenditure been increased, on account of establishment, supervision, by as little as 18 per cent., and that any higher charge would have resulted in a loss on the working.

79. At the same time, I would point out that the past ten years working has seen almost the commencement and entire organization of, what have been, difficult operations in an exceedingly difficult range, and that such operations must each year become somewhat facilitated and less expensive, while at the same time I trust the market value of our timber will promise to improve.

80. Much has been already done in reducing the working charges, and what immediately requires to be considered is the extension of our market sales. Such extension cannot be entirely expected in the local market (where the introduction of a small quantity of even 5,000 cubic feet of timber would lead to a fall in selling rates) but must be encouraged by the supplying of distant demands, such as might be expected from Bombay.

SECTION VI.

81. *General Remarks.*—The Revenue Board under this head have called for remarks regarding Forest Administration during the year. Owing to my equivocal position I find it difficult to respond, nor shall I attempt to go into details. I feel, however, bound to say in the interest of Forest Administration, that as far as arrangements in this district are concerned, the past year's experience does not lead me to anticipate agreeable results, either in forest development, or in that harmonious working between the revenue and forest establishment which is so much to be desired.

82. This is in a great measure due to the transfer to the Collector's Department of the little authority and importance that formerly belonged to Forest Officers, while on the other hand less assistance has been given to, and a greater amount of work and responsibility required from this establishment.

83. There is also much that is unsatisfactory in the complete severance of Forest Officers, and their Departmental Head and Representative.

84. In addition to this there are many delays necessitated by the constant references from the Forest to the Collector's Department, and the additional burden thrown on the former by the numerous explanations, reports, etc., that are called for to satisfy the enquiries of the latter, or that are entailed in the event of any difference of opinion between the two. And worse than all, that it is practically difficult, or to say the least exceedingly unpleasant, for a Forest Officer to bring to the notice of the authorities, any views or information he may have which are antagonistic to those of his Collector.

85. That the latter should at times require the Forest Department to do (as if an ordre only was necessary) much that without additional arrangements could not be done, while he may fail to coincide in or see the necessity of much that, in the opinion of the former, should be done, is to be expected, when the Forest Establishment is looked to to give successful practical effect to the theories of those personally unacquainted with Forest Administration.

86. At the same time the following troubles often brought forward still exist, and are more than ever trying to the department. I allude to weak Office Establishment; absence of education and training among Foresters and subordinates generally, poor prospects of promotion for them, and their consequent dissatisfaction; want of forest demarcation and survey; absence of Forest Law; abuse of forest rights; troubles of Kumaki check; difficulties in collecting seigniorage and securing a proper respect for Licenses, and other drawbacks in the departmental working and preparation of stock.

87. I am aware that these troubles cannot be rectified in a day, and I reiterate them here, merely that they may not be lost sight of, but remembered in criticising Forest operations in this district; for until many of these stumbling-blocks are removed, or provided for, it will be impossible to organize or work a sound administration, and therefore impossible to secure a satisfactory extension of operations, or even a steadily increasing revenue.

88. The health of subordinates for the past year has not been worse than for former years, but as might be expected from the nature and locality of operations, has given rise to many applications for leave. There have been no deaths during the year.

89. I am loath to speak of the conduct of subordinates. Irrespective of the annoyances experienced by the absence generally of education and training among them, a constant feeling of distrust is engendered by the dissatisfaction that is shown by them for their life and prospects.

90. This is strongly exemplified in the fact that as a rule, when vacancies occur, whether for Overseers or peons, it is either very difficult to obtain the services of good and efficient men, or having done so to secure them from the depreciation and demoralization which so often sets in.

91. With one exception, I would desire to reflect on none of my subordinates in particular, and, even this exception I do not feel it fair to the party concerned to mention here, as the Collector, with whom such matter would appear to rest, has taken a contrary view of the case to that which I hold.

92. On the other hand one of my Overseers, Mr. Carroll, has much to recommend him, and I regret that his qualifications, as a neat, careful business man and trusty individual, have not ere this obtained for him that recognition that I have more than once recommended.

93. I would also specially mention a certain Range Gumastah, J. M. D'Souza, who has satisfactorily served the department for past 10½ years, and under me has twice, for long periods, energetically attended to the entire work of a range during absence of the Overseer. His pay from first to last has never varied from Rupees 10 a month, which, under the present organization is the *one fixed allowance* to Range Gumstahs in this district, and from which no promotion (unless a single rise to Overseer's grade, which is a step too distinguished to be contemplated) is provided.

94. We are much in want of Ranger's appointments from Rupees 10 graduating upwards to the Overseer or Forester's grade, to which last position all Rangers should be encouraged to look for subsequent promotion.

95. Of my office establishment I desire to record entire satisfaction, and feel that this is but poor acknowledgment for my single Clerk who has, during past year, sacrificed many holidays, and fulfilled a duty that might, with greater fairness, have been exacted from more than one of similar calling and position in order to keep work somewhat up to the mark. Promotion for him in the department is likewise barred by the present arrangement of establishment.

96. In conclusion, I have the honor to ask consideration for the late date of the submission of this report. The delay is due partly to my occupation in making up the Stock Accounts for the past year, which, through deficiency in office assistance, had fallen into arrears, and partly to the time spent in compiling the two Statements J and K. It has also been considerably delayed by the difficulty of estimating the actual stock balance for the year owing to the recent transfer of all my Overseers.

97. So much did this last objection threaten to interfere with the submission of my report that, after several attempts, I was obliged to postpone taking stock to a more convenient time. There are, therefore, certain losses due to difference in measurements and deterioration, which should have been written off in the present accounts and report, but which now must remain to be considered with the operations for the current year.

I have, etc.,

(Signed) J. W. CHERRY,
Deputy Conservator of Forests.

(True Copy.)

(Signed) H. S. THOMAS,
Collector.

No. 217.

MALABAR COLLECTOR'S OFFICE,
ON CIRCUIT AT TELLICHERRY,
9th September 1874.

From

A. MACGREGOR, Esq.,
Collector of Malabar,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue.

SIR,—I HAVE the honor to submit my Forest Administration Report for the past official year in the manner prescribed in the Board's official memorandum, dated 20th February 1874, No. 22/222, and to forward herewith the reports, in original, of the officers in charge of the several forest ranges in this district.

2. The forests in Malabar comprise the following ranges, *viz.*:—

I. Nelambur.
II. Palghaut.
III. Wynaad.

No change in their administration has occurred during the year, except that the connection of the Deputy-Conservator of the Annamallays with the Palghaut Range has been severed since July 1873.

3. *Inspection Tour of Collector.*—The Nelambur Plantations were visited by me on three different occasions during the year under report, *viz.*, in July, December and February. On each of these occasions, I was satisfied with the general working of the range.

4. The aggregate receipts and charges during the year on account of the three ranges amounted to Rupees 42,131 and 45,789, respectively, leaving a net balance of Rupees 3,658

against the forests. The subjoined statement exhibits the comparative gross receipts and charges for the past two years :—

	For 1873/74.	For 1872/73.	Difference.
	RS.	RS.	RS.
Receipts	42,131	41,429	+ 702
Charges	45,789	43,975	+ 1,814

5. Considering that the Nelambur Range is mainly a planting range, in which the oldest plantations have only thirty years' growth, and that the Palghaut Range consists in a great measure of exhausted forests taken up for prospective fuel growth, the result may be considered satisfactory.

6. I shall now proceed to review the reports of each of the ranges.

SECTION I.

Nelambur Forest Range.

7. *Inspection Tour of Range Officer.*—The officer attached to this forest appears to have been on the move in almost every direction of his range, either to superintend field operations or for making arrangements for the floating of timber to the Coast Depôt. He has, on more than one occasion, inspected the latter during the course of the year.

SECTION II.

8. Reserves.—*Plantations.*—This range consists of various blocks of land scattered over the Nelambur Valley. The plantings cover an area of 2,990 acres, almost the whole of which is confined to Teak varying from one to thirty years' growth.

9. The number of Teak seedlings planted out during the year was 128,000. This is less than those set down in the previous year by 107,000. It is, however, somewhat in excess of the standard number, and the funds available necessitate confining operations to this extent.

10. The receipts and disbursements of the year, as contrasted with those of the previous year, are noted below.

	In 1873/74.	In 1872/73.	Increase.	Decrease.
	RS.	RS.	RS.	
Receipts	24,312	17,146	7,166	.....
Working Charges	20,000	17,041	2,959	....
Establishments and Contingencies	11,942	9,270	2,672	....
Total...	31,942	26,311		

From this it will be observed that there is an increase of Rupees 7,166 in the receipts, or adding increase of stock an excess of Rupees 8,184, which is attributable to larger sales of timber and saplings effected during the year. The greater part of the increase is in the item of saplings, where the increase was Rupees 3,532. This is very satisfactory, as saplings represent a direct return from the plantations, obtained by the operation of thinning, undertaken for the benefit of the plantations.

11. On the disbursement side, a sum of Rupees 2,900 and odd appears to have been expended in excess of the preceding year under Working Charges; and Rupees 2,600 and odd in excess under Establishment and Contingencies. The former is mainly due to the seigniorage for the last four years having been paid up in a lump sum this year; and, in part, to increased field operations. It must be borne in mind, that the large area planted last year required a proportionately increased expenditure in weeding. It is in the second year that the weeds are worst, and that the necessity for keeping them down chiefly exists. The increase under Establishment is attributable to the fact that a Probationary Assistant was doing duty at Nelambur throughout the year, which was not the case throughout the year previous, Mr. Stanbrough having joined the range only in the latter part of October 1872.

SECTION III.

12. This range is not worked under the license and voucher system, but departmentally.

SECTION IV.

13. *Yield.*—The number of logs felled were 840, measuring 23,000 cubic feet, of which nearly one-half consisted of Teak. The saplings of classes cut down came up to 28,500.

SECTION V.

14. *Financial Result.*—The receipts during the year aggregated Rupees 24,312, and the charges Rupees 31,942, leaving a difference of Rupees 7,630 on the debit side. Deducting therefrom a sum of Rupees 1,018, being the increased value of stock on hand at the close of the year, a net balance of Rupees 6,612 is found to stand against the range.

15. According to the relative magnitude of operations, the establishment may be divided between plantations and natural forest, in the proportion of $\frac{13}{20}$ths to $\frac{7}{20}$ths.

16. The results, taking this calculation, as to the whole year's operations, are as follows:—

PLANTATIONS.

Existing Plantations.

Expenditure.

	Rs.
Half Establishment	5,971
Miscellaneous:—*i. e.*, tools, rent, etc.	2,758
Working Charges	9,385
Total...	18,114

Receipts.

	Rs.
Sale of saplings	11,162
Increased value of sapling stock	292
Total...	11,454
Excess expenditure over receipts	6,660

Extension of 128 acres.

	Rs.
$\frac{3}{20}$ths Establishment	1,791
Working Charges	2,049
Total...	3,840

NATURAL FOREST.

Expenditure.

	Rs.
$\frac{7}{20}$ths Establishment	4,180
Miscellaneous...	1,379
Timber expenses	4,427
Total...	9,986

Receipts.

	Rs.
Timber	12,432
Bamboos	543
Firewood, etc	175
	13,150
Increased value of stock	726
Total...	13,876
Excess earnings over expenditure...	3,890

SECTION VI.

17. *General Remarks.*—Of the Mahogany seeds sent by the Board for experimental cultivation in September last, only one germinated. The young tree is flourishing; having grown to a height of thirty inches.

PALGHAUT RANGE.

18. This range, which formed part of the charge of the Deputy-Conservator of the Annamallays, was, in July 1873, placed under the immediate superintendence and management of the Palghaut Tahsildar, under the orders of the Head Assistant Collector, whose head-quarters are conveniently situated for the purpose. The Tahsildar has been directed to go over this range, at least twice a month.

19. The range consists of two blocks, *viz.*, the Chenat Nair Forests, comprising certain escheated forest land in the vicinity of Palghaut, including Nochipully, Pulliampully, and the fuel reserve at Walliar, the purchase of which was effected at the close of 1872/73.

SECTION II.

20. *Fuel Plantations and Reserves.*—The two fuel plantations at Nochipully and Pulliampully were formed in 1870 and 1871, respectively; and, at present, their extent is computed to be about 181 acres. I have already recommended in my letter of the 24th ultimo, No. 202, that these should be abandoned as fuel plantations, and incorporated in the reserved forest of which they form part. The Walliar Reserve is a little over 1,700 acres.

21. The subjoined statement represents the cost of maintaining them:—

	Expenditure		Receipts	
	In the year.	Up to the year.	In the year.	Up to the year.
	Rs. A. P.	Rs. A. P.		
Nochipully	248 0 5	2,209 2 4	.....	.....
Pulliampully	246 2 8	1,638 1 8	.....	.....
Walliar	532 6 6	532 6 6	.....	.....

22. The receipts and disbursements of this range for the past two years are exhibited in the subjoined comparative statement :—

——	1873/74.	1872/73.	Increase.	Decrease.
	Rs.	Rs.		Rs.
Receipts	832	340	....	8
Working Charges	1,496	4,811	....	3,315
Establishment and Contingencies	1,360	1,709	....	349
Total..	2,856	6,520		

The receipts have remained almost the same, and wholly appertain to the sale-proceeds of confiscated timber clandestinely felled. There is a tangible decrease under Working Charges, which is owing to the limited operations carried out during the year. The figures for the previous year cannot be reckoned upon as representing the true financial condition of this range, inasmuch as the accounts of this, and some other forests of the Coimbatore District, were in a manner blended together.

23. There is a slight decrease observable under Establishment and Contingencies, and this is explained by the fact that the Overseer in charge, who had been all the while acting, was only drawing half the sanctioned pay.

SECTION III.

24. This range has not been worked either departmentally or under the license and voucher system.

SECTION IV.

25. *Yield.*—There was no yield in this forest during the year under review; a good deal was done, however, in ascertaining its limits, and having them demarcated and surveyed, and a scheme of working has been drawn up by me, in consultation with the Inspector of Forests, which will, it is hoped, establish in future profitable results.

SECTION V.

26. *Financial Results.*—The receipts during the year amounted to Rupees 832, and the charges to Rupees 2,856, leaving an excess expenditure of Rupees 2,024. Deducting therefrom a sum of Rupees 219, being the increased value of stock on hand at the close of the year, the result is that a net balance of Rupees 1,805 stands against this range.

SECTION VI.

27. *General Remarks.*—Operations here were limited to planting in a small scale the Nochipully and Pulliampully Plantations, opening fire traces in these and the Walliar Reserve, and surveying a portion of the Chenat Nair Forest. There were two prosecutions for offences against the forest rules. The health of the establishment is stated to call for no especial remark.

SECTION I.

Wynaad Range.

28. *Inspection Tour of Range Officer.*—The Deputy-Conservator, Mr. Peet, appears to have been moving in almost every direction of his charge throughout the greater portion of the year, engaged in marking trees to be felled, detecting encroachments, and examining the boundaries of portions of the forests, etc.

SECTION II.

29. Reserves.—*Reserved Forests.*—This range is composed of three blocks of natural forests which escheated to Government on the rebellion of the owner during the last century. Felling

operations have been limited, mainly owing to the fact that a large quantity of felled timber is represented to be lying in the forests for years. The Deputy-Conservator has been turning his attention to the recovery of this; and, with the services of a couple of elephants from the Commissariat Department placed at his disposal for a few months, he has succeeded in dragging a number of these unwieldy logs to points of the forest where their carting is feasible; but, owing to the defective working of the cart contractor, their removal to the depôt has been retarded. The timber felled in the Chedleth and Koorcheat Forests are reserved for the Mysore Mart; while the fellings of Teak in the Kudricote Forest are now carted down the Peria Ghaut to the Experimental Coast Depôt at Tellicherry.

30. *Fuel Reserves.*—None.

Plantations.—Nothing has been done in this direction during the year.

31. The receipts and charges of this range for the year under review, as compared with those of the previous one, exhibit a considerable falling off in the revenue, which is chiefly attributable, as already mentioned, to the defective working of the carting contractor, whereby the amount of sales was materially affected. The variations in the expenditure are too trifling to call for remark.

——	In 1873/74.	In 1872/73.	Increase.	Decrease.
	RS.	RS.	RS.	RS.
Receipts	16,987	23,443	....	6,456
Working Charges	3,699	4,189	.....	490
Establishment and Contingencies	7,292	6,955	337	....
Total..	10,991	11,144	....	....

SECTION III.

32. The license and voucher system is not in force here; the operations being carried on entirely by departmental agency.

SECTION IV.

33. *Yield of Forests.*—Nearly 1,000 cubic feet of Teak were felled—535½ cubic feet of Teak, 41 of Blackwood, and 254¼ of Hone were carted to the Mysore Depôt; while 2,498¾ths and 2,778½ cubic feet of Teak were carted, respectively, to Manantoddy and Tellicherry, and 93¾ths cubic feet of Blackwood to each of the above two stations.

SECTION V.

34. *Financial Result.*—The receipts of the range amounted to Rupees 16,987-6-9, and the expenditure to Rupees 10,990-6-5. The value of stock in hand at the close of the year has decreased by Rupees 4,045-9-7. The result, therefore, is a net profit to the range of Rupees 1,951-6-9. As regards writing off such of the old stock as is not forthcoming, I will address the Board after consultation with the Inspector of Forests, who is expected to visit the range shortly.

SECTION VI.

35. *General Remarks.*—The health of the establishment has been very indifferent, but, happily, no casualties have occurred.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) A. MACGREGOR,
Collector of Malabar.

ENCLOSURE No. 1.

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
NELAMBUR,
13*th April* 1874.

FROM

J. FERGUSON, ESQ.,
Deputy-Conservator of Forests, Nelambur,

To

A. MACGREGOR, ESQ.,
Collector of Malabar.

SIR,—I HAVE the honor to forward the Annual Administration Report of this range under my charge for the official year 1873/74, prepared in accordance with the Board's Orders, dated 20th February 1874, No. 22/222, and paragraph 3.

SECTION I.

(a.) Inspection Tour of Collector.—On the 28th and 29th July, inspected current year's planting and operations in progress, and expressed satisfaction with the appearance of the seedlings planted out and operations generally. Also in December 1873 and February 1874, inspected some of the older plantations and inquired into the working of the range, etc.

(b.) Inspection Tour of the Range Officer.—In this range, supervision and direction of operations are the chief duties of the officer in charge; these being large field operations in distant centres necessarily occupy much of the officer's time, so that inspection tours will compare unfavorably with other ranges. After two months' leave, the Deputy-Conservator resumed duty on the 9th June, and continued planting and other operations in their proper seasons, respectively, and inspected repeatedly during the year Nellicottah, where floating operations were being carried on.

3. Amarapolem; where planting, weeding, thinning, marking, felling and collecting saplings were conducted under Mr. Stanbrough, Probationary Assistant.

4. Karimpoya; where the corrections and details of the Revenue Survey were being completed; Arimbracottah Mallay and the four Paramboos at Mangalasharry and one Umbala Cundi were also inspected, weeded, and seventy-five Teak trees marked for the repairs of the Tricklyur Temple; also the Calicut Market Depôt, inspected five times to encourage sales and thereby effect a clearance of stock on hand; also the other detached forests were inspected in connection with general superintendence.

SECTION II.

5. RESERVES.—*A. Reserved Forests.*—This range is strictly reserved and consists of a number of detached forests (or blocks of lesser and greater extent) scattered up and down the valley. Distance from Nelambur head-quarters to the north-east of Nellicottah farthest of point, fifteen miles, and south-west Mangalasharry, etc., in Calicut Taluq, twenty-seven miles.

6. The first and largest is the Nelambur block, containing within the demarcation boundaries 5,342·15 acres, of which there are area of 1,369·47 acres of Teak Plantations, commenced in 1842, but properly from 1844, and finished 1862. Plantation will be treated of under heading C.

7. The unplanted, and by far the largest portion is hilly laterite, poor soil, unsuited for growing Teak, with meagre crop of junglewood, *viz.*, Erul *(Inga xylocarpus)*, Poomaruda, a few Karimaruda *(Tenuanilexs)*, and Benteak *(Lagerstrœmia)*, also a very few small Blackwood *(Dalbergia latifolia)*; the first-named two are found in largest numbers also size, and the three last are fewer and of small size. This forest was exhausted previous to my assuming charge, 1862; since it has been strictly reserved and requires a longer period of rest before it can be worked remuneratively. Local names of the above natural forests are Yeddacode, Perumbadum and Wallachipallai, and are each situated on the north and west of Karumpoya River; but Yeddacode Plantations commence at the western boundary, Moondanthodoo extending the junction of Karumpoya, with the Karumpoya thence along the former fully three miles.

8. The second block is comprised of Pokode, Panangode and Walloovasherri, and contain within demarcation boundaries 2,903·17 acres, of which area there are Panangode Plantations 393·73, and Walloovasherri 584, aggregating 977·73 acres, and to these properly belong Chathembudovoi (lately purchased) intersected by the Adimpoya on the west from Pokode, on the south from Walloovasherri and Panangode by the Challear and Karimpoya, respectively, and contains 763·13 acres, of which 320 acres have been planted, and a further 60 acres ready to plant when the season opens. Walloovasherri and Panangode natural forests are all but wrought out of jungle woods. Pokode Forest is entire, contains only Erul and Benteak of ordinary quality; distant from head-quarters, nearest point Panangode, two miles, and farthest off point, five-and-half-miles.

9. The third block is Kanakutta Forest; bounded west by the Adienpoya, on the east by the Eyethodoo (and Chathembudovoi on the eastern bank of Eyethodoo and Adienpoya), and ends in a narrow point at the junction of these two streams. All natural forest of 727·63 acres; this also is entire, and contains a few Benteak and other junglewoods not of good size; distant from head-quarters, five miles.

10. The fourth block is Eddumbadum, and contains 657·25 acres; bounded on the south by the Challear River, on the west by Kaderi Padom, on the north and east natural forests belonging to the Zamorin of Calicut and the Trickalyur Divaswm, respectively. Also previously wrought out with a few trees of junglewood, the most of which are Benteak, requires longer rest before it will be remunerative to work; distant from head-quarters eight miles, nearest point.

11. The fifth block is Muriot and Karien united; contains 2,795·92 acres natural forest only, also previously worked out and with a few Teak and Blackwood of small dimensions and junglewood sparsely distributed. This forest is three miles from water-carriage, and requires long rest to improve the quality of timber so as to defray the extra cost required to bring the timber into the market from a long distance inland; distant from head-quarters, ten miles.

12. The sixth block is Nellicottah, and containing 1,919·61 acres, of which 133·23 are Teak Plantations planted out during 1870 and 1871, also almost wrought out. Karimaruda is the best timber produced in this forest; there are now very few other good trees left. Bounded on the south by the Poonapoya, and has a river frontage of fully five miles; distant from head-quarters, ten miles nearest point, and farthest off, fifteen miles.

13. The seventh block is Karimpoya, all natural forest; contains 4,000 acres, and is well intersected with water-carriage. Soil excellent for Teak planting; equal at least to, if not superior to Nellicottah, and will form decidedly the most magnificient block (when planted out) in the range. This forest is worked out and requires rest; distant from head-quarters, ten miles; and takes its name from the river Karimpoya, the largest in the valley. Poonapoya, Challear, Adienpoya, Krurumpoya, two Cherupoyas, and Irivingapoya with numerous thodos, are all tributaries and fall each in succession into the Karimpoya, which runs into the sea at Beypore and is locally known as the Beypore River.

14. The eighth block is Amarapolem; contains about 288 acres, of which eighty-eight were planted when purchased last year, and to which forty-three have been added last season, and sixty more cleared; this one in all now planted about 130 acres. The situation is good, the soil fair and well intersected with water-carriage, the lower portion of the block by the Cherupoya, and the upper on the south and west by the Kutherapoya, and distant from head-quarters six miles. These eight forest blocks form a circuit round the horseshoe-shaped valley of Nelambur.

15. The ninth block is Arimbracottah Mallay, and contains 338·50 acres, of which 22·27 were planted with Teak, 1843 and 1844, but are next to useless; soil is very poor, laterite bottom, inland two miles from the main river and half-a-mile from Cherupoya, and distant from head-quarters nineteen miles.

16. The tenth block is comprised of the following Paramboos, *viz.*, Manglasharry, Puthoocottah, and Chitarikel Paramboos in Calicut Taluq, comprising about 30 acres, mostly under Teak,

natural and planted; bounded on the east by the Irivingapoya and Mangalasharry and Umbalakandi in Ernad Taluq, also under Teak contains about 11 acres, the former on the eastern, and the latter, Paramba, on the western bank of the Karimpoya or Beypore River; distant from headquarters about twenty-seven miles; gives an area of plan measurement, natural forest, etc., 16,032·44, and plantations, Teak, under cultivation 2,967·79, and Sappan-wood plantation 3· acres, aggregating 19,003·23 acres, of which 4,288 are purchased outright, and 14,715·23 on perpetual lease deeds, and in no case there is no communal or village rights attached excepting Tricklayur Divaswan, which is allowed 100 trees, each twenty years, for repairs of the temple. These and all the surrounding forests are heavily covered with firewood, so there is no need for clandestine felling, in fact, barring the expense of transport to the coast. There is now, and every reason to believe it will continue, as much firewood as would supply the Madras Railway from Beypore a long distance northwards, a few bamboos (of grase) are allowed to the cultivators within the Government boundaries, and this is seldom abused: hence no prosecutions reported. The greatest mischief done is by elephants employed in bringing timber-rafts down the rivers, and when passing plantations, allowed to forage at large; they sometimes stray into the plantations and destroy the saplings both by barking and also breaking over and pushing them down to the ground, and unless pounded in the act, no redress can be obtained; and when taken in the act, the case is taken up criminally, a small fine imposed not even 25 per cent. value of the damage done, and further redress can only be obtained by having recourse to civil action which is expensive, and inconvenient from the necessity of part of the establishment being required to prosecute and taken away from important operations which are thereby retarded.

C.—Plantations.

17. These plantations cover an area of 2,991·11 acres Teak, and 3 acres of Sappan Wood from one to thirty years of age in all the intermediate stages of growth, with about 80,000 Blackwood seedlings interspersed over this area. Of course, a large number of these will ultimately prove useless; some from being crowded in clumps, others not having had a fair start are stunted and dwarfed, consequently worthless. During my incumbency of office, these have been most carefully conserved; but previous to my assuming charge, Blackwood seedlings were cut down in weeding, like jungle underwood.

18. Regarding maintenance of this area, being large field operations and distant centres, requires incessant supervision of all operations, *viz.*, weeding, pruning, marking, felling, and collecting of saplings for consignment to Calicut.

19. Fire-tracing, afterwards keeping the traces clear during the hot or dry season to prevent the jungle-fire spreading into the plantations, and also the removal of parasites, which, if not attended to, they soon overrun everything, seriously damaging the growth of the trees infected, ultimately killing them if allowed free scope to grow unchecked. Selecting site for fresh planting, weeding, felling, cross-cutting, piling, and burning. Preparation of nursery beds, collection and sowing of seed, watering till the monsoon opens, marking of pits and planting seedlings, then weed four times during the first season, but the older the plantation and the better the soil, the less weeding needed, and in like manner the less pruning required.

Operations.

Operations compared with last year's.

Description of operations.	1872/73.	1873/74.	Explanations.
Teak seedlings planted out ... ... No.	235,000	128,000	It was not deemed advisable to plant the same area this year as in the last year, other operations excepting floating of timber have been nearly doubled.
Weeded ... ...Acres.	1,540	3,200	
Hoed... ... ... „	235	128	
Pruned ... ... „	800	1,600	
Felled for fresh planting ... ... „	130	120	
„ logs of Teak and Junglewood .. „	530	840	
„ „ floated to Calicut... ... ... „	1,057	476	
„ „ sold in forest ... ... „	83	132	
Saplings felled... ... ... „	29,000	47,952	Bamboos less sold than felled; contractor debited with the value.
„ collected ... ... „	12,942	39,632	
„ floated to Calicut ... ... „	11,343	12,414	
Bamboos felled* and floated† to Calicut Depôt ... ... „	21,811	*12,163 †8,540	
„ felled and sold in forest... ... „	.....	400	
Fire-tracing, ten feet wide ... ...Miles.	13½	15	

Receipts and Disbursements of the current year compared with previous one, and the variations explained

RECEIPTS.

Description of Receipts.	1872/73.	1873/74.	Explanations.
	RS. A. P.	RS. A. P.	
Timber sold in Market Depôt	7,690 7 9	9,337 10 7	Rs. 7,169 realized more than in last year; this is due to the timber supplied to Department Public Works and increased sale of saplings.
Do. in Forest do.	115 1 5	3,074 2 6	
Saplings in Market do.	7,324 15 0	11,162 1 8	
Bamboos do.	1,703 6 11	563 1 4	
Miscellaneous Receipts	311 11 0	175 3 8	
Total..	17,145 10 1	24,312 3 11	

DISBURSEMENTS.

Heading.	Description of Disbursements.	1872/73.	1873/74.	Explanation.
		RS. A. P.	RS. P. A.	
I.	Timber expenses, etc.	6,221 11 10	4,426 14 10	Not fully cleared out.
II.	Purchase of tools, etc.	276 7 4	536 15 7	Increased field operations; required increased tools for working.
III.	Feed and keep of cattle ...	....	103 0 4	
IV.	Rent of Leased Forests ...	80 0 0	2,478 8 10	Increase caused by jenmies' rights cleared up for the past four years.
VI.	Plantations	10,062 2 5	11,434 11 7	Increased operations caused the increase.
VIII.	Forest demarcation, etc. ...	106 6 0	11 0 0	Nearly completed.
IX.	Experiments	48 11 0	6 6 0	
X.	Communications, etc.	245 12 11	992 6 10	Calicut Depôt Office, Forest Rest-house, etc.
	Office Contingencies	....	10 0 0	
	Total ..	17,041 3 6	20,000 0 0	
	Establishment or Superintendence	9,131 4 0	11,782 8 5	Increased by the entertainment of the Probationary Assistant.
	Total ..	26,172 7 6	31,782 8 5	

SECTION III.

20. *Forests worked under License and Voucher System.*—None.

SECTION IV.

Yield of Forests.

The yield of forest during 1873/74 has been:	RS. A. P.
Timber removed from forest, cubic feet 15,043, realizing... ...	12,411 13 3
Saplings, 14,513, do.	11,293 13 8
Bamboos, 8,332 do.	563 1 4
Total...	24,265 12 3
And timber felled, cubic feet...	23,000
Saplings of classes	28,529

SECTION V.

Financial Results.

Expenditure.

Heading.	—	Amount.	Total.
	A—Conservancy and Working.	Rs. A. P.	Rs. A. P.
I.	Timber Expenses, felling, etc.	4,426 14 10	
II.	Purchase of Tools and Plant...	536 15 7	
III.	Hire of Elephants, etc	103 0 4	
IV.	Rent of Leased Forests	2,478 8 10	
VI.	Plantations	11,434 11 7	
VIII.	Forest Demarcation and Survey	11 0 0	
IX.	Experiments	6 6 0	
X.	Communications and Buildings, etc.	992 6 10	
	Contingent Charges	10 0 0	
			20,000 0 0
	B—Establishment.		
I.	Pay of Executive Officer	3,600 0 0	
	(a) Probationary Assistant	1,800 0 0	
II.	Forest Conservancy Establishment	3,029 14 5	
III.	Timber Working and Depôt...	930 4 0	
IV.	Travelling Allowance of Executive Officer	1,100 0 0	
	(b) Camp do. Probationary Assistant	1,323 0 0	
V.	Office Contingencies	159 10 9	
			11,942 3 2
	Total disbursements during the year 1873-74	.....	31,942 3 2
	Receipts by Sales of Timber.		
	Logs in Market Depôt, 363	4,515 2 9	
	Saplings do. do. 13,715	11,162 1 8	
	Bamboos do. do. 7,932	543 1 4	
	Bandyloads of firewood, 65	130 0 0	
	Logs to the D. P. W., with 400 bamboos	7,885 5 7	
	Logs, private purchasers by removal from forest ...	31 4 11	
	Miscellaneous Receipts	45 3 8	
			24,312 3 11
	Balance against the forest	.....	7,629 15 3
	Value of stock on hand, 31st March 1873	20,853 4 9	
	Add timber felled during 1873/74	23,043 12 3	
			43,897 1 0
	Deduct timber sold during the year 1873/74	16,383 6 8	
	„ supplied to the D. P. W	7,885 5 7	
			24,268 12 3
	Balance	.....	19,628 4 9
	Difference between nominal value and amount realized.	.....	2,243 9 2
	Actual balance remaining on hand on 31st March 1874.	.....	21,871 13 11
	Particulars of Balance.		
	Stock in Market Depôt.		
	Nil.		
	Stock in Forest Depôt.		
	381 Logs Teak, containing 9,407 cubic feet	7,124 5 11	
	8 „ Blackwood „ 120 „	90 0 0	
	145 „ Benteak „ 4,370 „	2,185 0 0	
	213 „ Karimaruda „ 6,866 „	3,433 0 0	
	28,529, Saplings	9,039 8 0	21,871 13 11

SECTION VI.

General Remarks.

21. The accompanying Statements A. B. C. D. and E. give the abstracts of all accounts, and Statement F. gives detailed areas with local names of all the plantations and natural Teak in the range. Explanations have been given as to increased receipts and disbursements of the present compared with the previous year; also variations of operations in the year under review and previous one compare favorably. I have only to add, with regard to the improvements of the plantations, that, as above stated, I have conserved Blackwood plants since assuming charge; they are slow of growth, but will, in after years, be remunerative to Government when Teak is all cleared out. I take leave likewise to mention that out of the Mahogany seeds sent, one only germinated; and, as I predicted, it is now in a flourishing state, and stands 30 inches in height, and is a fine sturdy plant, and justifies the expression to introduce Mahogany as a second crop to the Teak.

22. With regard to the health of the establishment, fever has been prevalent and few deaths have occurred as usual. The efficiency of the establishment is never better; I would particularly recommend Mr. Cabral for the consideration of Government. He has had a long service, and specially qualified in his duty; he is a most distinguished officer, and has been long neglected.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) J. FERGUSON,
Deputy-Conservator of Forests.

Enclosure No. 2.
No. 312.

Malabar Head Assistant Collector's Office, Palghaut, 18*th May* 1874.

From
H. T. KNOX, Esq.,
Acting Head Assistant Collector,

To
A. MacGREGOR, Esq.,
Collector of Malabar, Calicut.

Sir,—I have the honor to forward, herewith, the statements connected with the Administration Report of the Palghaut Forest Range for the year 1873-74, and I give below the information called for in Official Memorandum No. 22/222, dated the 20th February 1874.

SECTION I.

Inspection Tours of Range Officer.—There are no records to show that any tours of inspection were made by my predecessors. The forests were placed under the charge of the Revenue Department about the middle of the year under report.

SECTION II.

Reserves.

There are no means of comparing the current year's receipts and disbursements with those of the previous year, as the forests were not then in our charge. The past year's receipt and disbursements on account of the reserves under the headings A. B. C. are shown below:—

	Receipt.	Disbursement. RS.	A.	P.
A. Chenat Nair	832	501	14	0
B. Walliar Reserve	...	532	6	6
C. Nochipully and Pulliampully Plantations	...	461	13	1
Total...		1,496	1	7

e receipt of Rupees 832 from the Chenat Nair Forests is the sale-proceeds of some timber stinely felled. The logs were collected at a cost of Rupees 115, confiscated and sold for es 832.

SECTION III.

These forests were not worked either departmentally or under license and voucher system. herefore unable to give any opinion as to which mode of working is preferable.

SECTION IV.

Yield of Forests.—There was no yield of any kind except the confiscated timber sold for pees 832.

SECTION V.

Financial Results.—The financial result of the year under review is an excess expenditure of upees 2,023-15-3, as will be seen by the Statement G. herein enclosed.

General Remarks.—The operations were limited to the surveying of a portion of the Chenat air Forest, the dragging and squaring of the confiscated timber, planting in Nochipully and Pulliampully Plantations, and making fire-traces in those plantations and in the Walliar Fuel Reserve. About half the latter was fire-traced at a cost of Rupees 410. A portion of that which was not fire-traced was nevertheless burnt. The results of these are still too uncertain for me even to guess what they will be. The health and conduct of the establishment call for no remark. There were only two prosecutions for offences against forest rules.

The Government forests are so small that there is little temptation to interfere with them.

In the same reason, the people generally have no opinion regarding the forest system. No free passes are given.

I have the honor to be,
~~Sir,~~
Your most obedient servant,

(Signed) H. T. KNOX,
Acting Head Assistant Collector.

ENCLOSURE No. 3.
No. 1.

DEPUTY-CONSERVATOR'S OFFICE,
MANANTODDY, 18*th July* 1874.

om
A. W. PEET, Esq.,
Deputy-Conservator of Wynaad Forests,

To
A. MACGREGOR, Esq.,
Collector of Malabar, Calicut.

SIR,—I have the honor to submit my Annual Administration Report on the Wynaad Forests for the official year ending on March 31st 1874.

SECTION I.

2. *Inspection Tour of the Officer in charge.*—In the early part of April, I went through the Kudricote Forests in as many directions as possible, for, although this season is considered the most feverish in Wynaad, yet it is the only time in which the forests can be seen thoroughly. The annual fires have run through the forests, and there is no undergrowth to impede one's

progress, or limit the vision. There were a considerable number of very large Teak tree of them past maturity, that I marked for felling. They were felled during the year; but, tunately, I could not get sawyers, so that a large number of these trees still lie in the fo I wish to have them sawn in the direction of the length; for, not only is there a large wa they are cut across with hatchets, but also the breadth and depth of some of them are too to admit of their being carted on an ordinary bandy. My cart contractor has agreed to fu sawyers after the monsoon of the current year.

3. I was obliged to engage a fresh cart-contractor during April 1875, for the Kudri Division had been utterly neglected by the former contractor. This new contractor worked well until the monsoon of the year 1873, but after the monsoon caused me great inconvenien and, by not furnishing carts from September till January, induced a great loss of revenue. some months I was unable to get carts at all for the Kudricote Division, but at length eng another contractor. I have lodged a complaint against the defaulter, but the case has not been decided. Towards the end of April, I went out through the Chedleth Division. I visit the Pambray Forests, the possession of which is still disputed between the Government and th Numbiar. Felling here is interdicted, but I am not yet certain whether the law is not being evaded by allowing the Poolpully Temple contractor to fell in a part of the Pambray Forest bordering on Poolpully, as if the land were part of the latter property.

4. I examined the boundary cut between Malabar and Mysore, but must wait until th line can be surveyed to state whether it is cut in accordance with the terms agreed on. In some parts it appeared to me that the course taken unduly favored Mysore. The line agreed on is detailed in Lieutenant Fullerton's Report, No. 152, of the 26th March 1868, contained in Government Proceedings, No. 604, of the 27th April 1868. After examining this line, I rested at the Shegabetta tree, a very large Mango tree, forming one of the stations in the Trigonometrical Survey. I was attacked by the bees that hive under the branches of this tree, and my horse was so severely stung that he died four hours afterwards at my Chedleth hut. I was badly stung, chiefly about the hands, and returned at once to Manantoddy for medical treatment, since the inflammation was excessive.

5. In May, I went on a short tour through the heavy forests of the Dindimul Range. The greater part of the accessible sites in this direction has been already sold by Government.

6. Beyond Dindimul there is a large Cardamom tract escheated by Government, and ren out for the year to a Moplah.

7. In the middle of the month, I went through the Trinhully Valley to examine the fores there, and came to the conclusion that it was not worth working with a view to timber. The are some Cardamom tracts, however, which are worth still reserving. The Trinhully Valley timber is that termed heavy forest growth, which certainly includes some good kinds of timber, but not of sufficient quantity to work to advantage, especially when the absence of roads and the configuration of the ground are taken into consideration. Towards the end of the month, the monsoon set in. I went out during the first burst to Sultan's Battery, to try and effect a sale of the elephant caught in our forests last year. The date had been fixed beforehand on the impression that the monsoon would commence later. Under the circumstances, very few purchasers appeared, so the elephant was bought in. It was sold a month or so afterwards for Rupees 1,000.

8. During June and July, very little work can be done in the forests; carting operations cannot go on, and the Coorumbers will not work.

9. In August, I was employed chiefly in establishing the boundaries of the Kudricote Division. They are very difficult to determine, but I took the evidence of some of the oldest Coorumbers in default of documentary evidence.

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